

PROCESSOR

Products, News & Information Data Centers Can Trust. Since 1979

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COVER FOCUS

Boosting Enterprise Security

Enterprises can almost always benefit from enhanced security techniques. We run down some of the latest strategies to keep you ahead of troublemakers.

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Four Tools That Cause IT Headaches (& What To Do About Them)

Tablet PCs, social networking, and hosted applications can cause problems for data center managers in charge of securing their enterprises and keeping networks up and running. We talked with experts to come up with some tips to help. See page 26.



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The Processor.com home page is frequently updated with new articles and hardware news to help you keep current.
Visit www.processor.com today.

Meeting Your IT Needs

Best Buy For Business Has Been Providing Solutions For More Than 20 Years

by Seth Colaner

• • •

BEST BUY® MIGHT NOT BE the first name that comes to mind when one thinks of IT solutions, but perhaps it should be. The company launched its commercial arm in 1988 and has been building ever since. Today, Best Buy For Business provides a range of business and technology solutions suited to everyone from SMB and SOHO operations to major companies with complex IT needs.

National Scope, Local Service

One of the strengths of Best Buy For Business is its presence throughout the country. With more than 1,000 stores nationwide, no business is particularly far away from a Best Buy location. Glen Swanson, senior vice president of Best Buy For Business, says having numerous store locations “gives us the national scale with the flexibility of a local support model.” Thus, Best Buy For Business has the capabilities and resources of an enormous nationwide company but offers the type of immediate, person-to-person service one would expect from a local shop.

You can walk right in to a Best Buy store and talk to one of 20,000 Geek Squad® agents, or the Geek Squad can send support personnel directly to your business. In addition, by purchasing bulk hours, you’ll receive in-person support in “blocks” of time your business or branch can use as needed—they don’t expire. Geek Squad® Black Tie™ Protection support via phone is also available 24/7.

For SMBs, Best Buy For Business can function as the entire IT structure and support staff, letting the SMB focus on its core business.

Customized Solutions For Varied Markets

Businesses can acquire any number of business tools through Best Buy, including computers, mobile devices and service, networking hardware, software, peripherals, and office consumables such as ink toner and printer paper.

Yet Best Buy For Business is designed to meet diverse types and scales of IT needs, and it’s done through a multichannel approach, including in-store sales and service, online sales or research or forum discussion at the Best Buy Business District (BestBuyBusinessDistrict.com), a customer’s place of business, and over the phone.

“Best Buy For Business is about a range of business and technology solutions covering the full spectrum of business today,”

Swanson says, “from the small business owner or somebody that’s running a business out of their home all the way up to technology solutions at a commercial and enterprise level, serving in a wide range of needs.”

For some small businesses, office branches of larger companies, franchises, or even departments within a larger organization, that need may be as simple as a small fleet of notebooks, or it could be the entire IT infrastructure and associated service, including hardware.

assortment is immense, Best Buy For Business offers both a variety of possible solutions and the vast inventory of a nationwide corporation. Thus, Best Buy For Business can deliver a few storage devices or thousands of them with equal aplomb.

Additionally, the expertise built up within Best Buy For Business means that, not only can it deliver the needed solutions (and do it in bulk if need be), but associates can help companies determine what they need and keep customers

Best Buy For Business Products & Services

Best Buy For Business offers products in a multitude of categories as well as services to satisfy virtually any business need. Here are just a few of particular interest to businesses.

Products

Cables
Communications
Computers
Displays
Imaging
Networking
Office Products
Point of Sale (PoS)
Power & Racks
Printers
Security Devices
Servers
Software
Storage

Services

Onsite installation and support
24/7 phone support
In-store assistance
Service plans and lease agreements
IT help desk services



Jeff Brewer, senior director of Best Buy For Business, says “For small businesses, we’ve been able to establish and help with their IT needs, infrastructure, and build-out and also the services piece. But for a medium to large business, we’re able to customize solutions.”

But businesses of any size can benefit from working with Best Buy For Business, be it a large-scale audio/visual operation such as the Minnesota Twins’ baseball stadium, specific projects for government agencies, or any number of solutions for the hospitality industry.

In short, it’s not so much a matter of the size, scope, or particulars of the business; because the company’s product

supplied with the most up-to-date and beneficial technology.

Longevity

In Best Buy For Business’ decades of existence, it has outlasted industry competitors and comfortably weathered tech busts as well as the worst financial crisis in 80 years. If one of the concerns a business has about contracting IT service with a third party is the party’s long-term viability, Best Buy For Business is a safe bet.

“You could buy your computers from anywhere today—we realize that,” Brewer says. “What we bring is a branded service solution for you, and then we customize it to fit.” ■



We asked to see photos of your messiest closets, telco rooms, and data centers.

Vote for your favorite Cable & Cabinet MAKEOVER

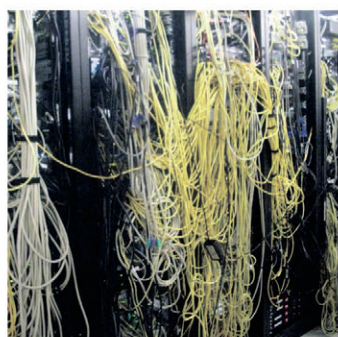
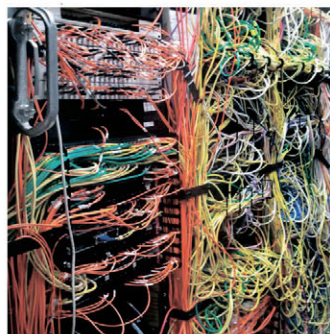
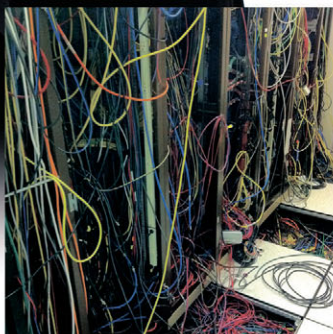
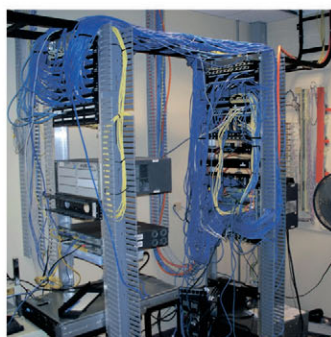
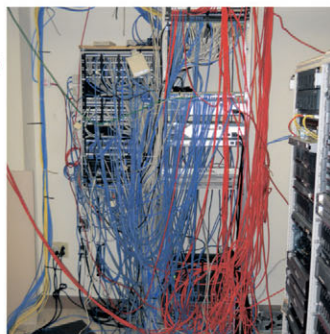
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closet into a dream.

Go to blackbox.com/go/Makeover
to vote for the finalist you think
deserves the makeover valued
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may win an **iPad®**. Everyone
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Hurry! Voting ends March 16, 2011.

vote now at blackbox.com/go/makeover

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visit our **cabinets & racks** e-catalog

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see our **environmental security** solutions

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try our **cabinet configurator**

www.blackbox.com/go/CabCon

see our **power management** solutions

www.blackbox.com/go/PowerController

Vote today at blackbox.com/go/Makeover.

Upcoming IT Events

Are you looking to learn more about data center or IT topics? Network with some of your peers? Consider joining a group of data center professionals. If you have an event you'd like listed, please send an email to feedback@processor.com.

- FEBRUARY -

Southern California Linux Expo
Feb. 25-27
Hilton Los Angeles Airport Hotel
Los Angeles, Calif.
www.socallinuxexpo.org/scale9x

- MARCH -

Cincinnati Programmers Guild
March 3, 6:30 to 8:30 p.m.
Max Technical Training
4900 Parkway Drive, Suite 160
Mason, Ohio
www.maxtrain.com/pages.aspx?pagename=ITAssociations

SharePoint User Group
March 3, 6 to 8 p.m.
Max Technical Training
4900 Parkway Drive, Suite 160
Mason, Ohio
www.maxtrain.com/pages.aspx?pagename=ITAssociations

Central Plains ISSA
March 4, 1 p.m.
Wichita Marriott Restaurant
9100 E. Corporate Hills Drive
Wichita, Kan.
issa-cp.org

AITP Research Triangle Park
March 10
University Club
4200 Hillsboro St.
Raleigh, N.C.
www.rtp-aitp.org

Agile Product Leadership Network
March 10, 6 to 8 p.m.
Max Technical Training
4900 Parkway Drive, Suite 160
Mason, Ohio
www.maxtrain.com/pages.aspx?pagename=ITAssociations

Cincy SQL
March 10, 6 to 8 p.m.
Max Technical Training
4900 Parkway Drive, Suite 160
Mason, Ohio
www.maxtrain.com/pages.aspx?pagename=ITAssociations

Cisco (ROUTE): Implementing Cisco IP Routing
March 14, 9 a.m.
Online Live
www.nhnorthflorida.com

AITP Oklahoma City
March 15
aitpokc.org

AITP Southwest Missouri
March 15
aitpspringfield.org

PASS Minnesota
March 15
passmn.org

AITP Omaha
March 17
aitpomaha.com

CinARC Software Architects
March 17, 6 to 8:30 p.m.
Max Technical Training
4900 Parkway Drive
Suite 160
Mason, Ohio
www.maxtrain.com/pages.aspx?pagename=ITAssociations

CincyFlex
March 17, 6 to 8:30 p.m.
Max Technical Training
4900 Parkway Drive
Suite 160
Mason, Ohio
www.maxtrain.com/pages.aspx?pagename=ITAssociations

ISSA Northern Virginia
March 17, 5:30 p.m.
issa-nova.org

For more Upcoming IT Events, see page 12.

Google Leads In Market Share, Bing In Accuracy

Google continues to lead Bing and Yahoo! in search engine market share, but Bing is gaining ground and currently leads Google in accuracy, according to research from Experian Hitwise conducted in January. While Google amassed 67.95% of all U.S. searches, Bing-powered searches made up 27.44%, up from 25.77% in December. Yahoo! search dipped to 14.62% from 15.17%. Accuracy-wise, 81.54% of searches via Bing and 81.38% via Yahoo! resulted in a visit to a Web site vs. 65.58% for Google. Experian Hitwise says the disparity highlights “the opportunity for both the search engines and marketers to evaluate search engine result pages to ensure that searchers are finding relevant information.” The study also found that five- to eight-word searches were up 5% from December to January, while one- to four-word searches dropped 1%. Two-word searches made up 23.59% of all searches.

Study Cites Awareness Of Security Issues

According to findings from a recent survey commissioned by Application Security, organizations lack a sense of urgency for securing critical data. The survey, which was conducted by Unisphere Research, polled 430 Oracle Applications Users Group members as part of an overall study titled “Managing Information in Insecure Times.” More than half of respondents indicated that budget was the greatest roadblock to information security efforts, while 33% cited a lack of understanding of threats. A quarter of respondents said that a disconnect between IT teams and executive management was a primary hurdle to implementing proper security measures. On the cloud computing front, Unisphere reported that 45% of respondents view a risk in the rise of private cloud computing, citing concerns with security implications of sharing data and application services taking place outside their business units. Further, three out of four respondents said they have not yet defined a cloud security strategy.

Dell Posts Impressive Financial Results

Tech giant Dell saw record financial results in fiscal year 2011, largely on the strength of its enterprise solutions and services, which were up 27% for the year. The company saw its largest single-year increase in revenue ever, with fourth-quarter revenue of \$15.7 billion (up 5% year over year) and full-year revenue of \$61.5 billion (up 16% from 2010). For the fourth quarter of Dell’s fiscal year 2011, GAAP operating income was \$1.1 billion (a 124% increase), and GAAP net income was \$927 million, a 177% increase over Q4 2010. Non-GAAP operating income for Q4 2011 was \$1.3 billion and its net non-GAAP income was \$1 billion, increases of 61% and 87%, respectively.

NetApp Shows Positive Results, Closes In On EMC

Fueled by indirect sales, revenues for IT Infrastructure provider NetApp rose sharply in Q3 2011. The company reported revenue of \$1.3 billion, up about 25% compared to revenues of \$1 billion for Q3 2010. NetApp showed income of \$172 million for the period, up about 60% from \$108 million for the same period a year ago. The results appear to shorten the revenue gap between NetApp and EMC; the latter company reported Q4 revenue growth of 19%. NetApp’s product revenue was \$818 million in fiscal Q3 2011, up 32% over last year; software and maintenance revenue rose 8% to \$184 million, and service revenue grew 20% to \$266 million.

Apple Releases Workplace Audit

Although company spokespersons maintain that electronics manufacturer Foxconn—the Asian manufacturer that provides electronics

for Apple and other high-tech vendors, is not a sweatshop—a recent Apple internal audit discovered and reported on dozens of “core violations.” These included workers forced to pay steep hiring fees, a total of 91 underage workers, falsified employment records, and two instances of “worker endangerment.” The audit is widely thought to have under-reported violations, with critics charging that Foxconn managers know when audits are scheduled and hide underage workers while auditors are present. Such practices as underage hiring, worker endangerment, and falsified records are by no means limited to Foxconn, say critics.

Credit Card Fraud Becoming More Prevalent

A recent study commissioned by ACI Worldwide revealed that during the past five years, 29% of individuals using credit or debit cards have been victims of fraud. The study, conducted by Research Now concerning 4,200 people in North America, Europe, Asia, Dubai, and Brazil, also states that the incidence of credit card fraud has risen 62% since 2009. Despite these findings, however, the study reported that 79% of card holders who have experienced fraud are satisfied with the way their financial institution handled the situation. Only 12% of Americans feel that their bank could be doing more to mitigate fraud, but 29% of Brazilian and 42% of Chinese consumers have little confidence in their banks’ protection abilities.



Smartphone Market Shows Big Gains In 2010

Smartphone vendors shipped 100.9 million units during the fourth quarter of 2010, according to IDC, up more than 87% from the same period a year ago. For the entire year, vendors shipped 302.6 million smartphones worldwide, up almost 75% year over year. Nokia was the overall leader. It shipped 100.3 million units last year, accounting for 33.1% of the market. Research in Motion came in second with 48.8 million units shipped and 16.1% of the market, followed by Apple (47.5 million units; 15.7% market share), Samsung (23 million units; 7.6% market share), and HTC (21.5 million units; 7.1% market share). IDC says this year will also be a good one for the smartphone market as vendors broaden their offerings.

Mobile Devices Increasingly Becoming Security Targets

Mobile malware increased 46% year over year, reflecting an increase in the number of new mobile platforms and a lack of security awareness and mobile safeguards. McAfee released those findings and others in its “McAfee Threats Report: Fourth Quarter 2010.” In 2010, more than 20 million new pieces of malware were uncovered—that’s about 55,000 new threats each day. On the positive side, spam accounted for 80% of total email traffic during the fourth quarter, marking the lowest number since early 2007. However, McAfee notes, this decrease in spam can likely be attributed to a “transition period” in which several botnets were dormant.

Study Quantifies Current World Data Stores

Researchers at the USC Annenberg School for Communication & Journalism have calculated the amount of data humankind has stored to date, and as you can imagine, it’s a lot. The total storage capacity of all digital and analog devices is equal to 295 exabytes, or about 295 billion gigabytes. Other stats show that 94% of our technological memory was digital as of 2007; that year, we collectively broadcasted 1.9 zettabytes of data over televisions and GPS devices, which is equal to every person on the planet reading 174 newspapers every day. Additionally, between 1986 and 2007, global telecommunications grew 28% annually, storage capacity expanded 23% every year, and computing capacity ballooned 58% each year—a factor of 10 faster than the United States’ GDP in that period.

Study Questions Username Security

Computer users are frequently warned of the perils of an unsafe password, but according to researchers at INRIA, France’s National Institute for Research in Computer Science and Control, your username choice can make you easy prey for criminals and overzealous marketers alike. In its paper, “How Unique and Traceable Are Usernames?,” the researchers discovered, somewhat counterintuitively, that unique usernames can be a security risk, especially if they are tied to your real identity. This is because unique usernames are easier to trace, especially when reused across multiple social networking and online services. The group also points out the inherent risks in creating a username out of the person’s complete name.

Former Microsoft Exec Accused Of Stealing Data

Microsoft claims that Matt Miszewski, a former market development manager for the company, stole nearly 25,000 pages worth of company information, which he allegedly saved on his personal computer. Microsoft is suing Miszewski because he recently accepted a job at Salesforce.com, one of Microsoft’s competitors, and Microsoft fears he might use the stolen information to gain an advantage. Microsoft went to court in January to seek a temporary restraining order that would prevent Miszewski from working at Salesforce.com, which was granted. Microsoft hopes the court will extend the order until a ruling is made.

IBM To Build New Supercomputer

The Department of Energy has commissioned IBM to build a new supercomputer capable of performing 10 quadrillion calculations per second, or 10 petaflops. That eclipses the 2.67 petaflops of China’s Tianhe-1A, which currently ranks first on the Top 500 list of the world’s fastest supercomputers. The computer, nicknamed Mira, will help academic and government researchers run large, complex computer models for large-scale research and development projects. Mira will be powered by more than 750,000 IBM PowerPC A2 1.6GHz processors when it begins operating in 2012. It will be housed at the Argonne National Laboratory in Chicago.

Costs Rise For U.S. Government’s Digital Archive

The digital record-keeping system for the U.S. government is exceeding projected costs, and, according to the Government Accountability Office, could cost up to \$1.4 billion more than expected. The ERA (Electronic Records Archive) has been active since 2001 and acts as a digital preservatory for billions of government documents, including the Bill of Rights and the Constitution. The National Archives and Records Administration has been tasked with creating the ERA. According to reports, the monumental difference in final cost estimates is likely due to lack of policy, training, specialized resources, or a definitive plan for the program.

STATS & FACTS

PROVIDING THE LATEST INSIGHT & INFORMATION FROM LEADING RESEARCH FIRMS

Grow, But Remain Vigilant

Cautious growth. Those two words perhaps best sum up a new survey of CIOs conducted by Gartner Executive Programs. Although 2011 IT budget projections are relatively flat, with an average increase of just 1%, cloud computing and virtualization are often creating budget savings. This means CIOs can reallocate those savings to new infrastructure changes and projects, Gartner reports.

Here's what Gartner found:

Top Business Priorities

- 1) Increasing enterprise growth
- 2) Attracting and retaining new customers
- 3) Reducing enterprise costs
- 4) Creating new products and services (innovation)
- 5) Improving business processes

Top Technology Priorities

- 1) Cloud computing
- 2) Virtualization
- 3) Mobile technologies
- 4) IT management
- 5) Business intelligence

Cloud Computing Confusion

As Gartner's survey of CIO priorities points out, cloud computing is top of mind for many enterprises. But that doesn't mean everyone is clear on the concept. In fact, a recent survey conducted by Virtacore Systems shows just the opposite may be true. The report surveyed respondents at companies with between 100 and 1,000 employees and found:

- 64% of all employees surveyed do not understand the cloud computing concept

- Among IT workers specifically, 48% aren't sure what the cloud means

- Even among companies that use cloud programs and technologies such as Gmail and Google Docs, 54% of respondents did not realize they're using cloud-based applications

- 47% of those surveyed say lack of budget is the biggest inhibitor to adopting cloud-based apps



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Unique Features



- ◀ All Circuit Breakers Monitored
Most metered power solutions only monitor input power. BayTech monitors all circuit breakers and reports via SNMP when thresholds are met.



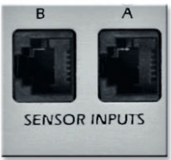
- ◀ Optional Outlet Metering with Efficiency
Monitor individual outlets and receive current, watts, and volt-amps. Continuously monitoring equipment for efficiency with power factor.



- ◀ High Retention C13 Receptacle
Reliable integrated locking clips assure power cord retention. Unique to the industry and does away with nuisance wire clips.



- ◀ Reliable PCB Power Distribution
ISD's (Insulation Displacement) connectors are faulty and unreliable! All BayTech power solutions use reliable PCB power distribution.



- ◀ Integrated Sensor Inputs
Eliminate the need for extra environmental monitoring devices. All BayTech power solutions offer two ports for external temperature and humidity probes.

Build Custom Power Solutions with Standard Modular Product

BayTech's MRP Modular Rack Power system provides reliable power distribution with maximum flexibility for receptacle selection and power input.

BayTech offers three classes of the MRP system. Switched and monitored, simply monitored and individual receptacle monitoring.

User friendly interface for controlling power to receptacles, monitoring Current, Voltage, Watts, Temperature, Humidity, and KW Hour Meter.

Standard Features

- High and Low Density Models
- 120/208/AC Single Phase
- 208/400VAC Three Phase
- 20,30,50,60 Amp Support
- On/Off Reboot Control
- HTTPS, SSH, SSL Access
- Radius, TACACS Authentication
- Tool less Mounting

Unique Features

- Modular Design
- All Circuit Breakers Monitored
- KW Hour Meter
- Current, Voltage and Watt Meters
- Integrated Locking C13 Receptacle (Optional)
- Reliable PCB Power Distribution

PRODUCT RELEASES

The *Processor* Product Releases section includes brief overviews of data center products.

All products listed have been released recently, so use this section to get up to date with what's new on the market and to find products you need.

Manufacturers:
Do you have a new product that data center/IT managers would be interested in learning about?
Send your press release or product information to press@processor.com.

PHYSICAL INFRASTRUCTURE

■ **Aten VanCryst Media Matrix Solution**

Aten announced the release of the VanCryst Media Matrix Solution, which includes a VM808T eight-input/eight-output CAT 5 AV Matrix Switch and VE500 AV over CAT 5 AV Extender. Overall, the product allows for sending high-quality audio and video data over CAT 5E cable to numerous displays from numerous input sources over 300 meters or more with support for up to a 1,920 x 1,200 resolution at 60Hz.

■ **AVTECH Device Manager v4.0.0**

This is the latest version of AVTECH's management software for its environment monitoring hardware. Highlights from the list of features include support for new devices via plug-ins, action and task scheduling, new tweaks for alert settings, bug fixes, and more. Device Manager v4.0.0 is available for download.

■ **Black Box Remote Console Manager**

Black Box announced the release of its Remote Console Manager, a four-port console management appliance that includes 3G cellular connectivity. In addition to monitoring Ethernet devices, the appliance also monitors devices with serial or USB interfaces and enables UPS monitoring and management for power distribution units and remote power supplies.

■ **Black Box ServSwitch Secure KVM Switches**

Black Box recently announced its line of ServSwitch Secure KVM switches designed to provide "military-grade security" to prevent data loss and leakage. The switches allow users to switch between two to four separate desktops, whether they are on secured or unsecured networks, and use the same keyboard, mouse, and monitor for each system.

■ **Lantronix Evolution Operating System 5.2**

Lantronix recently released the latest version of its Evolution Operating System. Version 5.2 brings open standards, extensible technologies, and enterprise-grade networking security to a variety of Lantronix devices, including XPort Pro and EDS 1100/2100. Evolution OS 5.2 uses industry-standard methods for configuration, communication, and control to facilitate quick deployment.

■ **Lantronix PremierWave EN**

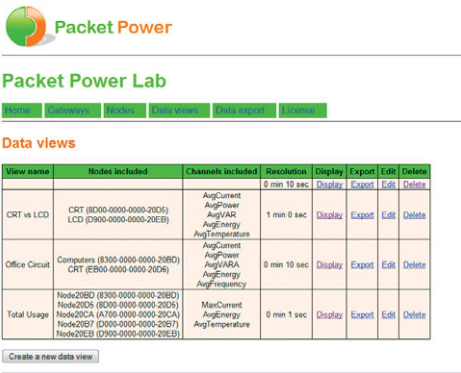
Lantronix launched the Lantronix PremierWave EN embedded Linux wireless device server. The module allows design engineers and OEMs to add intelligent, wireless Ethernet networking to any device. When incorporated within an OEM product, the PremierWave EN's secure, high-quality wireless connectivity enables businesses across a variety of different industries to securely transmit medical, financial, customer, or other important information across corporate networks. The module allows customers to leverage the many advantages offered by the dual-band 802.11a/b/g/n standard, including network load balancing and traffic segmentation. PremierWave EN features a 32-bit ARM9 processor and is built on an embedded Linux operating system that includes Lantronix's device server application.

■ **MovinCool Office Pro W20**

MovinCool released the Office Pro W20, a portable, watercooled spot air conditioner with 15,700BTU per hour cooling capacity. The unit is aimed at applications where an air-cooled spot air conditioner can't be used due to the lack of a drop ceiling or other limitations preventing the exhausting of hot air. The self-contained unit combines a compressor, condenser, and evaporator into one housing.

■ **Packet Power Power Lab**

Packet Power's Power Lab is a hardware and software monitoring solution that works with Packet Power's Smart



Power Cables to create precise energy profiles of IT devices. Power Lab provides a detailed, second-by-second comparison of how different devices use energy under various workloads. Power Lab can support up to 20 devices per location in multiple sites. Data can be viewed in real time via Web-based access or can be exported in formats such as XML, Excel, Access, or CSV. For more on this product, see page 13.

■ **Racktivity EnergySwitch 1008 PDU**

Racktivity is currently offering the EnergySwitch 1008, an advanced power distribution unit, to assist IT personnel in power consumption management, advanced metering, switching, and predictive analysis. The ES1008 uses Racktivity's



patent-pending EnergyDNA technology to provide data center managers with vital power quality analytics, which customers can use to make educated load balancing and asset distribution adjustments, as needed, to cut costs and manage resources. The ES1008 accurately reports current, voltage, power, and power factor and energy consumption. Other features include remote monitoring and control, real-time true RMS measurements, sequential start-up, and programmable thresholds for alarms and warnings. For more on this product, see page 13.

NETWORKING & VPN

■ **Alloy Software Alloy Discovery 6**

Alloy Software, a New Jersey-based provider of service and asset management software, released Alloy Discovery 6, the latest version of its network discovery and inventory package. Discovery 6 provides auditing technology that enables centralized tracking of IT assets, even in large enterprises with complex organizational structures.

■ **Dialogic I-Gate 4000 Session Bandwidth Optimizer Mobile Backhaul**

Dialogic released its I-Gate 4000 SBO MB, a mobile backhaul optimization product for service providers that offers voice and data stream optimization for 3G, 2G, and enterprise traffic. The solution allows for using existing infrastructure to double bandwidth in Radio Access Networks while reducing network investment and operational expenditures by consolidating and optimizing voice and data traffic.

■ **Ensim Unify Enterprise Edition v. 3.0**

Ensim released the Ensim Unify Enterprise Edition Version 3.0 for managing essential IT resources. Features include approval workflows, user naming conventions, multirole assignment capabilities, and improved availability. Version 3.0 is built on Microsoft WWF (Windows Workflow Foundation) and includes support for multi-valued Active Directory attributes.

■ **Ericsson IP Networking Portfolio**

Ericsson announced the latest generation of its IP networking portfolio, which is designed to accelerate mobile broadband growth as well as increase video and cloud services options while preserving the quality of service. Components include the Ericsson Smart Services Router, Ericsson IP Transport NMS, and an integrated solution for combining microwave and optical technologies in IP transport.

■ **Exele TopView 6.9.0**

Exele added features to its latest version of TopView software suite, v6.9.0. The update includes Mobile Browser optimization that lets users customize settings for mobile devices so they can view data measurement reports and alarms easily.

■ **Kaseya Network Management Tools**

Kaseya, a Swiss provider of automated IT systems management software, released antivirus, anti-malware, network discovery, network monitoring, online backup, and local backup modules that the company says will help enterprises protect against network attacks. The software tools let enterprises view their network through a single integrated console and find and manage endpoints more quickly.

■ **Netuitive Integration Studio**

IT analytics and management platform company Netuitive will be releasing Integration Studio, an open development environment that enables customers to plug in data streams from any monitoring source. Data is collected and normalized in Netuitive's integration hub and analyzed by Netuitive's predictive IT analytics software. The release includes APIs that enable integration with configuration management databases and other tools.

■ **Radware VADI**

Radware announced its VADI (Virtual Application Delivery Infrastructure) with the addition of two components: Alteon VA and vDirect. The Alteon VA is a soft ADC, while vDirect is an application delivery controller management orchestration plug-in. Both are designed to be integrated in the VMware virtualized infrastructure.

■ **RingCube vDesk VDI Edition**

RingCube Technologies introduced vDesk VDI Edition, which is an enterprise

desktop virtualization tool that expands an organization's VDI user base, enables faster and more efficient VDI rollouts, reduces VDI infrastructure costs, and lowers a VDI project's cost per user. It's designed to help companies realize the productivity and cost-saving benefits from their VMware View and Citrix XenDesktop investments.

■ **Riverbed Technology RiOS 6.5 & Cascade 9.0**

Riverbed Technology announced enhancements to both its RiOS 6.5 and Cascade 9.0 products. The updates provide a broad range of functionality that will extend visibility from the network engineer to the C-suite and give IT the ability to allocate resources based on needs.

■ **BMC Software Control-M Self Service**

BMC Software announced the release of the Control-M Self Service workload automation solution. A Web-based interface allows users to check work status, make workload processing changes for business transactions, and use a catalog of predefined workloads. Control-M Self Service solution also lets users view and request IT workload services for internal or external customers. BMC says the solution also allows IT to cut costs by eliminating service desk tickets and their associated tasks.

■ **Symplified Suite**

Symplified announced the release of its Symplified Suite, a cloud identity management, single sign-on, and access management solution. The suite accepts consumer identities based on the OpenID standard, such as Google, Microsoft, and Yahoo!. Features include the Symplified Trust Fabric App Store that contains pre-integrated cloud applications.

STORAGE

■ **3X Systems RBA Enterprise Series**

3X Systems announced its RBA Enterprise Series, which provides remote backup for private clouds. These solutions let users back up Microsoft Exchange as well as Windows-based servers, laptops, and workstations to an over-the-Internet appliance with data deduplication and encryption.

■ **Addonics Technologies CF/CFast Duplicator**

Addonics Technologies announced a family of data duplication appliances for copying CompactFlash and/or CFAST memory cards. The six models in the lineup support four, five, or 10 simultaneous copies from a single source card. The appliances can copy up to 150MBps, Addonics says. Prices range from \$699 to \$1,299.

■ **B&L Associates Vertices 5.3**

B&L Associates released Vertices 5.3, the latest version of their tape and media management software. Vertices 5.3 provides users with quick access to the management of groups, FTP settings, and preferences through its Web-based interface. You can now create, delete, and maintain all groups and FTP profiles, as well as maintain and manage all preferences.

■ **DataCore SANsymphony-V**

DataCore released SANsymphony-V, storage virtualization software that enables IT organizations to eliminate storage-related

PRODUCT RELEASES

barriers that impede the achievement of financial and operational goals associated with virtualization initiatives. SANsymphony-V lets data centers use equipment already in place, as well as conventional storage devices. Additionally, the software helps avoid the performance problems I/O bottlenecks cause and issues associated with downtime.

■ Index Engines Look & Learn

Index Engines announced Look & Learn, a cloud-based tape load solution. Users can perform virtual searches to learn more about stored content, custodians, email, and metadata. The flexible service options include full extraction and query-based extraction. Legacy content is accessible for \$50 per tape.

■ Iron Mountain Legal Discovery 10.0 & eVantage 2.0

Iron Mountain upgraded its Enterprise Discovery Suite with the addition of Iron Mountain Legal Discovery 10.0 and Iron Mountain eVantage 2.0. The enhancements give enterprises a unified legal repository, advanced document analytics, and improved performance for early case assessment. Iron Mountain says the upgrades make it easier for companies to predict the costs of legal discovery.

■ Kroll Ontrack Inview 6.5

Kroll Ontrack launched Inview 6.5, a document review tool now offering Intelligent Categorization, which the company says builds upon the Automated Workflow and Intelligent Prioritization features released in June and August 2010. The categorization feature analyzes human

decisions to make categorization recommendations for documents that have yet to be reviewed, thus addressing a challenge that traditional document review poses, namely that categorization determinations are frequently generated inconsistently and inefficiently. The feature allows for learning to immediately begin upon lawyers, designated as “trainers,” making category decisions. Afterward, the system applies intelligent categorizations to the review set for evaluation by the review team and validation via quality control measures.

■ Oracle Cloud File System

Oracle released the Oracle Cloud File System, which enables storage pooling through a network-accessible elastic storage cloud. Oracle says the system is ideal for companies that have rapidly shrinking, growing, or migrating storage pools. The system costs \$5,000 per processor and features file snapshots, file replication, data access encryption, and file tag aggregation.

■ Oracle StorageTek T10000C

Oracle released its T10000C tape drive, which it claims can supply several times more speed and capacity than competing IBM and LTO-5 systems, and with a lower TCO. The StorageTek T10000C provides 5TB native capacity and a native throughput of 240MBps. With 2:1 compression enabled, the library can scale to an exabyte, Oracle says.

■ Pervasive Software Pervasive DataRush 5.0

Pervasive Software announced version 5 of its Pervasive DataRush. Designed to

handle large data challenges by harnessing multicore servers and clusters, Pervasive DataRush 5.0 features automatic scaling across all cores on mainstream and large multicore servers and clusters to enhance speed and economics.

■ Quest Software vRanger Pro

Quest Software announced the latest release of vRanger Pro, a comprehensive data protection suite that features integrated backup and replication, native cataloging, and Fibre restore to speed recovery and cut down on LAN traffic. Additional features include Linux File-Level Recovery, NFS Storage Support, and FTP Storage Support.

■ Remote Backup Systems Web Manager & E-Commerce Plug-ins For RBackup v11

Remote Backup Systems released versions of its Web Manager and E-Commerce plug-ins. The plug-ins feature several enhancements, including support for tiered logins, brandable customer Web sites, server control consolidation, and customer transactions. RBS supplies turnkey online backup systems to managed hosting providers, MSPs, VARs, and ISPs.

■ Sans Digital AccuRAID AR424I & AR424IR

Sans Digital released the AccuRAID AR424I and AR424IR, a series of 4-channel single controller (upgradable) and 8-channel redundant controller iSCSI 4U 24-bay solutions. The AccuRAID AR424I and AR424IR support up to 900MBps or 200K I/Ops read and write performance and support both SAS and SATA hard

drives for high workload computers, data centers, and virtualization applications.

■ STORServer Virtual Machine Backup v3.0

This latest version of VMB adds support for VMware’s vStorage APIs, which reduce server load by using direct, agentless data transfers between TSM storage pools and disks. It removes the need for admins to have TSM training in order to run TSM backups, the company says.

SECURITY

■ Alcatel-Lucent 5060 IBC-4

Alcatel-Lucent announced the 5060 IBC-4 (IP Border Controller-4), an integrated solution designed to offer best-in-class security against network breaches. Features include scalability, eco-friendly benefits, support for up to 200,000 subscribers, and enhanced services such as Rich Communication Services and high-definition voice.

■ Barracuda Web Security Flex

Barracuda recently announced its Web Security Flex, its Web security solution that provides multiple options for deployments, such as an onsite appliance, virtual appliance, Web Security Agent for laptops, and SaaS for cloud-based workers, all into one Web security solution. Web Security Flex enables users to monitor, manage, and enforce company policies for all users.

■ Check Point 3D Security

Check Point released 3D Security, which the company says redefines security

Go to Page 8

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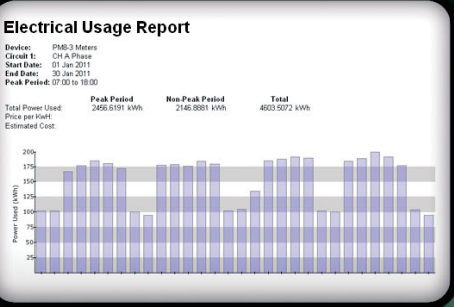
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PRODUCT RELEASES

Continued from Page 7

as a three-dimensional business process that combines policies, people, and enforcement for stronger protection across all security layers. The release is meant to provide enterprises with a security blueprint that goes beyond technology measure to help maintain the integrity of enterprise data while also streamlining operations.

■ Check Point Software R75

Check Point Software announced its Check Point R75 security suite. The security suite features Check Point’s 3D Security technology, which lets users create and enforce policies while allowing them to educate their employees. It also includes software blade solutions, such as Data Loss Prevention, Intrusion Prevention, and Mobile Access.

■ Codenomicon SNMP Trap

Codenomicon announced its SNMP Trap security test suite, which extends its model-based testing solutions to more than 200 protocol simulations. The company also announced the release of Defensics 3.12; this version includes controls for creating more test scenarios, reproduction crash-level issues, and improved test performance.

■ eEye Digital Security Retina Community

eEye Digital Security announced Retina Community, a prerelease version of the free vulnerability scanner. Equipped to identify various vulnerabilities as well as configuration issues and missing patches, Retina Community relies on the Retina Network Security Scanner and is designed to enable organizations to identify and fix vulnerabilities and misconfigurations by scanning a selected set of IP addresses. Users receive vulnerability updates as well as reporting and alerts. Other features include online support and resources from eEye; XML, CSV, and PDF export capabilities; detailed reporting; configuration auditing; and vulnerability assessment across operating systems, applications, devices, and virtual environments.

■ Fortinet FortiWeb 4.0 MR2

This firmware version of Fortinet’s FortiWeb Web application firewall line brings with it attack protection scheme expansions to facilitate compliance with PCI DSS 6.6. There’s better integration with the company’s FortiAnalyzer appliances, along with a FortiWeb-VM virtual appliance compatible with VMware ESX/ESXi 3.5 and 4.0 platforms.

■ LogRhythm Advanced Intelligence Engine

LogRhythm announced its Advanced Intelligence Engine, which is a part of its SIEM 2.0 platform. The most important feature of this release is Real-Time Pattern Recognition, which goes beyond traditional monitoring and helps users identify potential threats using the TrueTime pattern recognition feature.

■ M86 Security VuSafe

M86 Security launched VuSafe, a free service to the K-12 education market. M86 VuSafe allows delivery of third-party videos, such as YouTube content, while avoiding the video sites’ distracting comments and banner ads. M86 VuSafe also minimizes security issues by limiting exposure to Internet threats that may be found in links, banner ads, and other content that may accompany videos on third-party sites.

■ nCircle Benchmark

nCircle unveiled the nCircle Benchmark, which is a security and compliance benchmarking service that lets users test

and gather performance feedback on their whole security infrastructure. The cloud-based nCircle Benchmark service displays performance details on visual scorecards and compares it with the scores from nCircle’s community of users. Current nCircle Suite360 customers also have access to the Metrics Packs for Vulnerability Management and Configuration Auditing. The offering can also deliver details regarding risk profile, organizational structure, and compliance requirements. This optional Metrics Design Studio lets users create tailored metrics and scorecards to suit their needs. The application is currently available free.

■ NTT DOCOMO & Symantec PGP Whole Disk Encryption & Remote Disable & Destroy

NTT DOCOMO and Symantec have partnered to let DOCOMO customers take advantage of a 3G-mobile managed service that features Symantec PGP Whole Disk Encryption with Remote Disable & Destroy. Supported by Intel Anti-Theft Technology, the service makes it possible for customers to disable a laptop through locking or destroying hard drive data.

■ Procera Networks PacketLogic PL8820

Procera Networks released the PacketLogic PL8820, a security appliance that provides 30Gbps of “Intelligent Policy Enforcement,” according to Procera. The scalable PL8820, which is a 2U rackmount device, kicks off the company’s PacketLogic PL8000 series. It applies policy enforcement based on deep packet inspection to better address today’s threat landscape, the company says. The PL8820 is compatible with IPv6, essential for compliance with carrier requirements. It supports up to 2 million subscribers and 20 million flows per appliance, according to Procera.

■ Sophos Mobile Control

Sophos announced its Sophos Mobile Control, which is a smartphone-based security platform for Android, Windows Mobile, and iOS-based devices. The offering enables customers to secure data on handheld devices, monitor device status, and manage how these devices interface with the corporate network. Sophos Mobile Control will be available in the second quarter.

■ Sophos Virtual Email Security Appliance

IT security company Sophos released what the company touts as “the first virtual security appliance to bring strong security, data protection, and administration ease to the latest VMware virtual environments.” As a member of the company’s Email Security and Data Protection product line, the virtual email appliance brings the same integrated protection and simplified management of Sophos’ hardware appliances to the virtual environment. The Virtual Email Security Appliance provides an integrated solution that combines data loss prevention and email encryption with proactive spam and malware protection. The appliance offers rapid provisioning, responsiveness, and change management using preconfigured virtual machine profiles.

■ Southco & Digitus Biometrics EML System

Southco and Digitus Biometrics have together launched an EML (electromechanical latch) system with an integrated biometric reader for server enclosures. The db ServerRack access control system uses Southco’s H3-EM Electronic Locking Swinghandle with a built-in, multistage fingerprint verification and access control system from Digitus Biometrics.

■ SunGard Protegent Social Media Surveillance

SunGard unveiled the Protegent Social Media Surveillance, which is a social media compliance and surveillance platform that lets customers monitor and archive data uploaded and posted to social networking Web sites. The offering provides automated pre-approval workflows and generates reports and alerts to assist in meeting regulatory requirements and enforcing internal policies.

■ Symantec VeriSign Identity Protection

Symantec and Intel have partnered to integrate Symantec’s VeriSign Identity Protection credential into the Intel Identity Protection Technology. As a result, Intel’s 2nd Generation Core processors, including Intel Core vPro processors, support strong authentication to enterprise, partner, and consumer applications.

■ Tufin Security Suite 5.3

Tufin announced version 5.3 of its Tufin Security Suite. New features include a SecureTrack solution that now supports Palo Alto Networks’ firewalls as well as other next-generation firewalls. Security Suite 5.3 also supports physical and virtual environments and provides real-time tracking of content updates.

■ Websense TRITON Security Gateway Anywhere

Websense announced the TRITON Security Gateway Anywhere, which combines Websense Web and Email Security Gateway technology into a unified content security gateway. The product includes hybrid deployment and data loss prevention, and it consolidates on-premises email and Web security on a single Websense V-Series appliance.

MESSAGING & TELEPHONY

■ Patton & Elastix Platform

Patton and Elastix together have announced their mutually certified unified communications solution. The certified-interoperable platform features Patton’s SmartNode VoIP gateway routers working with the Elastix open-source iPBX and related functional modules, including call center, CRM, email, and fax. The companies state the system will offer a complete, fully tested unified communications solution with expanded capabilities.

■ Sherpa Software Compliance Attender 8.1 For Lotus Notes

Sherpa Software released Sherpa Software Compliance Attender 8.1 for Lotus Notes. The email compliance solution augments the Mail Rules functionality included with Domino Server software by allowing businesses to take additional actions to manage internal and external email. Compliance Attender also offers cross-platform support, with the ability to run on all Domino operating system platforms.

■ Siemens Enterprise Communications OpenScale Service Packages

Siemens Enterprise Communications now provides customizable service packages for multivendor, multisite unified communications deployments. Featuring per-site service-level agreements, Siemens’ OpenScale Service Packages offer remote and onsite maintenance, network infrastructure visibility, a designated Service Account Manager, and more.

■ Siemens OpenScape UC Server Xpress

Siemens announced its OpenScape UC Server Xpress voice and UC (unified

communications) solution. Geared toward enterprises with between 350 to 1,000 employees, OpenScape UC Server Xpress is composed of OpenScape Unified Messaging, Conferencing, Contact Center, and Voice applications. OpenScape UC Server Xpress also features the OpenSmart Customer Data Collection solution that gathers customer information, as well as a Web-based portal that has a forum for customer interaction. This solution is designed to be easily deployed with pre-configured applications and will be made available through Siemens Enterprise Communications’ reseller partners.

■ Tone Software ReliaTel

Tone Software announced the availability of SIP management through its ReliaTel VoIP QoS and Converged Infrastructure Management software. The SIP management facility strengthens the ReliaTel core competency of managing voice quality, network service levels, and the physical voice and data infrastructure from end to end, across virtually any convergence technology mix.

CLIENTS

■ Appian BPM Suite

Appian announced the latest Appian BPM Suite, a BPM platform for process improvement that is designed to extend process visibility and participation through native mobile device access, real-time collaboration, filtered and personalized views of key business events, integration to external systems, and the ability to take direct action in a familiar and intuitive social media interface.

■ Bomgar 10.6

Bomgar released version 10.6 of its Bomgar software, which includes improved abilities designed specifically for enterprises. Among the enhancements is the inclusion of Bomgar Atlas Technology, which enhances scalability and manageability for global support operations. With the technology, enterprises can configure and manage global or large-scale remote support operations from one location.

■ Eurocom All-In-One PC Uno 2.0

Eurocom released the All-In-One PC Uno 2.0, a fully upgradeable, 74W desktop replacement system. Priced at \$876, the Uno 2.0 includes an Intel Mobile i3, i5, or i7 processor; 16GB RAM; 1.24TB hard drive; 1GbE connectivity; two Serial RS-232, one external VGA, one HDMI 1.4 in, one USB 3.0, four USB 2.0, one eSATA, and one RJ-45 LAN ports; and a 19-inch widescreen WXGA+ display.

■ HP Pre3

HP announced the Pre3, its webOS-based smartphone. The device features a 3.58-inch touchscreen, 1.4GHz processor, Wi-Fi, GPS, apps, a front-facing camera, and a full slide-out keyboard. The Pre3 supports multitasking and advanced messaging and voice capabilities, and it has the battery life to sustain a constantly connected lifestyle. The Pre3 will be available this summer.

■ HP TouchPad

HP introduced the first webOS-based slate, the HP TouchPad. The unit features a 9.7-inch multitouch display, virtual keyboard, instant-on access, and support for Adobe Flash Player 10.1 beta in the browser. The unit also offers all the benefits of the webOS platform, including multitasking, advanced messaging and voice capabilities, apps, and more. HP will release the TouchPad this summer.

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- Door/Cabinet Position
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Boost Your Enterprise Security

Bolster Your Defenses From Multiple Angles With These Quick Tips

by Christian Perry

TODAY’S ENTERPRISE SECURITY landscape is littered with sophisticated threats that are designed to quickly and effectively leech information and other assets. Boosting enterprise security often requires a multipronged approach that covers security from several angles, so consider the

Key Points

- By defining action plans and roles, enterprises can effectively mobilize resources when security incidents occur.
- Instead of completely prohibiting the use of removable media, monitor its usage and record actions to find potential security issues.
- Regular penetration testing should be applied to both internally developed systems and vendor systems to ensure they aren’t subject to compromise.

following tips that can thwart malicious types from infiltrating your organization’s perimeters.

Improve Your Processes

You can populate your data center with the latest and greatest security tools, but if solid surrounding processes aren’t in place, those tools will not meet expectations. Alison Andrews, CEO of Vigilant (www.thevigilant.com), recommends focusing on process improvements to immediately reduce overall risks and their associated costs.

“Create a map of key risk areas and a prioritized list of assets, which, if compromised, would have the greatest impact on your business, and put a process in place for keeping this up-to-date,” Andrews says. “Changes in the IT environment, introduction of new applications or business processes, and the evolution of security threats will all impact how you define key risks.”

She also advises that enterprises define action plans and roles so that when incidents do occur, appropriate resources can be mobilized to analyze and address each problem based on its criticality. Finally, after the dust settles following an incident, a post-mortem improvement process should be implemented to identify areas where logging filters, correlation rules, other device configurations, or the processes themselves can be tuned, she says.

Create A Position

Although it can be tough to initially justify creating a new security position in tight economic times, doing so might save your enterprise from massive security breaches in the future. Brian Beal, information security officer at Sensiba San Filippo, recommends hiring and empowering a dedicated security person, such as a CISO (chief information security officer), to create or improve a security management program for the organization.

“Having a network security engineer is great, but who’s responsible for making sure the entire enterprise, in addition to the network, is being secured?” Beal asks. “Many companies try to put the responsibility of security on the operation manager’s plate, but does that person have any security-specific training or background? Or do they even have the extra time it would take to develop a comprehensive security management program? The answer to both questions is typically ‘no.’”

Control Removable Media

Today’s company information is more portable than ever, thanks in part to removable media such as USB flash drives. While these and similar devices can ease the jobs of traveling employees, they can also cause huge data leaks. A. N. Ananth, CEO of Prism Microsystems

(www.prismmicrosys.com), notes that simply disabling all removable media across the enterprise is an extreme measure that can be just as harmful as allowing full access for the devices.

“The compensating control is to carefully monitor such usage and record all actions for closer scrutiny,” Ananth says. “Automation is the only practical answer to prevent valuable organization data from malicious insiders while maintaining the productivity. Endpoint protection is an increasingly important technique for data loss prevention by enforcing the usage of only company-issued removable media such as USB devices and automatically monitoring usage of writeable devices such as CD/DVD drives.”

Plan To Test Penetration

According to Phil Lieberman, president and CEO of Lieberman Software (www.liebsoft.com), pen (or penetration) testing is a critical step for ensuring overall enterprise security. He recommends performing regular pen testing of external and internal systems to confirm that critical systems aren’t subject to

compromise by newly discovered—or even long-existing—threats.

He notes that this regular pen testing should be applied to both internally developed systems and vendor systems and that enterprises shouldn’t rely on vendor-provided testing results or assertions claiming that their applications are more secure than off-the-shelf software installed on servers or workstations. He also recommends using a team outside of the standard IT staff to confirm and implement security policies.

“IT is sometimes the cause of the security flaws that develop and never get resolved. This is due to there being no incentives for IT to maintain security,” Lieberman says. “In fact, security tends to drain resources, add time to completing events, and generally is inconvenient to IT’s mission. It is best that there be a group solely responsible for testing and implementing security and processes separate from day-to-day IT activities.”

Profile Behavior

One method for identifying unusual or new behavior in the enterprise is behavior profiling of key metrics, which include privileged user activity, network traffic, policy changes, and after-hours access, Prism’s Ananth says. Through the use of automation, such as the automatic correlation of log data, enterprises can develop a baseline for metrics in an adaptive learning period.

“An effective behavior profiling requires a reasonable and adaptive learning period,” he says. “This depends on the nature of the industry. For instance, a 24/7/365 hospital emergency room would have different behavior than a retail store—traffic patterns including time of day [and] day of week can influence the pattern. An adaptive baseline is essential to cope with this challenge, absent which false positives can be expected.”

Use Existing Solutions

Traditional security defenses such as firewalls, antivirus, and intrusion prevention systems are ultimately big targets for hackers who want to access data. While you still need those elements in place, it’s also a good idea to consider other solutions already in place but that you might be using for a different purpose, says Steve Shalita, vice president of marketing for NetScout Systems (www.netscout.com).

“For example, service delivery management and service assurance solutions can be used to complement existing perimeter security approaches to help identify attacks and security risks that would otherwise be missed,” Shalita says. “Most malware attacks slip by traditional security devices as they ride on supposedly trusted applications and files. By leveraging network-based anomaly detection to baseline information of normal network traffic over time, behavior that deviates from the norm can be quickly spotted.”



Top Tip: Address Mobile Devices

The skyrocketing ascension of smartphones and other mobile devices has created a serious challenge for IT managers who look to limit or even ban their use by employees. However, according to Ray Dickenson, CTO of SafeCentral (www.safe-central.com), employee-owned devices are now part of the enterprise security realm regardless of the IT team’s policies or preferences for supporting them. In turn, corporate data will be accessed and stored on them even if security policies prohibit those activities, so

it’s a good idea not to ignore their presence.

“Update corporate network acceptable use policies and employee handbooks to include the use of portable digital devices,” Dickenson advises. “Explain when and how employees are allowed to connect to the corporate network and store and forward corporate data, even if the policy in both cases is ‘never.’ Perhaps most important is guidance on end-of-life procedures for a device. Make sure employees know they should never

leave data behind on a device that is sold, donated, or thrown away.”

Dickenson adds that remote access and other data security vendors have tools and advice for best practices, and it’s wise to take advantage of these offerings. For example, SSL VPNs can let employees securely connect to corporate networks from outside of the office. Many vendors, he notes, include a private workspace or secure desktop that creates a small sandbox during VPN sessions.



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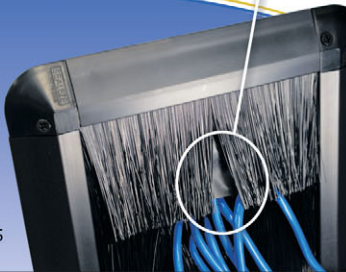
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Upcoming IT Events

For more Upcoming IT Events, see pages 4, 14

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March 17, 2:30 p.m.

Northland Inn
7025 Northland Drive N.
Minneapolis, Minn.
www.simnet.org

AITP St. Louis

March 24, 5:30 p.m.

Crowne Plaza Clayton
7750 Carondelet Ave.
St. Louis, Mo.
stlouisaityp.org

Data Center World

March 27-31

Mirage Hotel & Convention Center
Las Vegas, Nev.
www.datacenterworld.com

AITP Akron-

Tools For Deploying Windows 7

March 29

Akron, Ohio
www.akron-aitp.org

ISSA Metro Atlanta

March 31, 6:30 p.m.

SecureWorks
One Concourse Parkway NE
5th Floor
Atlanta, Ga.
www.gaissa.org

- APRIL -

Central Plains ISSA

April 1, 1 p.m.

Wichita Marriott Restaurant
9100 E. Corporate Hills Drive
Wichita, Kan.
issa-cp.org

Cincinnati Programmers Guild

April 7, 6:30 to 8:30 p.m.

Max Technical Training
4900 Parkway Drive, Suite 160
Mason, Ohio
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SharePoint User Group

April 7, 6 to 8 p.m.

Max Technical Training
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Agile Product Leadership Network

April 14, 6 to 8 p.m.

Max Technical Training
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AITP Research Triangle Park

April 14

University Club
4200 Hillsboro St.
Raleigh, N.C.
www.rtp-aitp.org

Cincy SQL

April 14, 6 to 8 p.m.

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AITP Oklahoma City

April 19

aitpokc.org

AITP Southwest Missouri

April 19

aitpspringfield.org

PASS Minnesota

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passmn.org

AITP Omaha

April 21

aitpomaha.com

CinARC Software Architects

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COVER FOCUS



Encryption Options

With So Many Encryption Choices, What's Best For Your Enterprise?

by Elizabeth Millard

THERE ARE PLENTY of encryption options on the marketplace, from software applications to hardware appliances. Finding out what works best for an enterprise is usually a matter of tweezing out what's needed and implementing an appropriately sized solution. Here's a quick primer on the encryption space, with definitions of frequently used terminology.

Symmetric Algorithms

First, the basics: In the cryptography arena, the Advanced Encryption Standard, or AES, is the type of encryption utilized by the U.S. government, and it employs block ciphers. These operate using a class of algorithms that rely on keys for encryption and decryption. Other popular symmetric algorithms include Twofish, Serpent, Blowfish, Truecrypt, and Triple Data Encryption Algorithm.

A formerly widely used algorithm, Data Encryption Standard, or DES, has been broken and is now considered to be insecure for many applications, according to Ron LaPedis, director of product management and marketing at SPYRUS (www.spyrus.com).

When choosing an encryption solution, it's important to ensure that the algorithm being used is publicly vetted, as AES has been, LaPedis says. "By using a publicly vetted algorithm, you are assured that many experts have evaluated it and proven it effective," he says. In most cases, IT managers will want to use a FIPS (Federal Information Processing Standardization) 140-2 approved algorithm or library, he adds.

Hardware & Software Variations

A number of hardware and software encryption options exist today. Encrypting data at the tape drive level, for example, can bring several benefits to a data center, including capacity and performance boosts. This type of encryption allows for

compression before encryption is utilized, a strategy that can increase tape capacity and backup performance. Some experts believe that encrypting through an appliance in the network might create latencies that could affect speed and capacity. Also, the more devices and hardware that are involved in an encryption plan, the more management is required. Not only could this affect overall performance, but it could also create gaps in the encryption strategy and create larger inefficiencies.

There are also a variety of encryption applications available, and most are geared toward protecting data at a certain level. For example, file or folder encryption can lock down data at that level, while database encryption is geared toward protecting those particular areas of a corporate data warehouse. While useful,

Skiping Encryption

When creating an encryption plan, IT managers should keep in mind that not all data deserves to be protected, notes Jon-Louis Heimerl, director of strategic security at Solutionary (www.solutionary.com). The impulse at some enterprises may be to lock down all data, but employing that tactic could lead to using more encryption and storage than necessary.

Also, it can impact performance. "Understand that encryption can come at a performance price," Heimerl explains. "The processing it takes to do the encryption is not free. Performance varies by data, data volume, and encryption solutions, but seeing a performance hit of 15% should be expected, with a performance drop of as much as 40% as a result of encryption."

Heimerl advises that companies do some data classification and utilize data deletion strategies, in addition to determining the appropriate processing throughput.

encryption at several different levels with various software encryption choices can create a security tangle, especially when it comes to key management.

For end users, thumb drives with encryption can be very handy for transferring files and storing data that's in transit from one geographical location to another. Although these types of portable devices have encryption built in, managers should not rely on them too much, believes Jon-Louis Heimerl, director of strategic security at Solutionary (www.solutionary.com). He notes that some of these encryption methods can be bypassed by resetting the device, accessing the device through backup, or simply mounting the device as an extension of a computer's file system.

Third-Party Key Management

Being able to keep track of keys is vital to any robust encryption strategy. Using a third-party application that can provide centralized key management is becoming more popular, and for good reason: The tactic enables companies to unify their encryption and manage policies more effectively.

"When considering any encryption solution, key management is an extremely

Key Points

- When choosing an encryption device, application, or drive, look for publicly vetted encryption, such as 256-bit AES.
- Self-encrypted USB devices can be handy for transferring files, but managers should be cautious not to rely on them too heavily, because there are ways to bypass the security controls on some devices.
- Be wary of proprietary, homegrown encryption solutions; some experts believe that they're easily cracked and not as strong as commercially available encryption.

important factor," says Russ Dietz, vice president and CTO at SafeNet (www.safenet-inc.com). "Key lifecycle management ensures that one system can manage keys for all the technologies within an organization while protecting the access to each system." Dietz adds that data center and IT managers need to look at encryption from a holistic perspective and deploy the best key management system as the starting platform for their information security and encryption plan.

Beware Of Proprietary Solutions

Some companies have attempted to implement internally developed encryption strategies. Although this type of method isn't widespread, it does occur in the industry, and Heimerl notes that the chances such a strategy can truly work are low. "Proprietary encryption methods are rarely as secure as commercially approved methods," he says, recalling a very large Solutionary client that used proprietary encryption on its file transfers, believing it was cheaper and faster. When Solutionary's intrusion testing team was hired to look at the company's internal security, it took less than 15 minutes to break the encryption. "If we could do it, people with less benevolent intentions could do the same just as easily," Heimerl says.

No matter which option is chosen, managers should remember that encryption is not the answer for everything, Heimerl adds. He notes that encryption is part of a larger security strategy that includes staff training, user education, and proper application development. "Encryption must be supported by policies and procedures along with other parts of a security program," he says. ■

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NEW PRODUCT

by Andrew Leibman

Racktivity Puts The
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AS A LEADER in in-rack power distribution and energy efficiency, Racktivity knows a thing or two about green IT. But Racktivity’s new EnergySwitch 1008 PDU doesn’t just equip IT personnel with the typical tools to manage power consumption, it also provides users with industry-leading metering, switching, and predictive analysis capabilities that help them maintain consistent uptime and rapidly recover from the rare and unavoidable downtimes that occur.

As part of Racktivity’s comprehensive hardware- and software-based EnergyCloud System, the new 1U rack-mountable ES1008 reports the most complete set of real-time power metrics to enable IT personnel to quickly determine the status, suitability, and quality of power being delivered to each device. The ES1008, like all EnergySwitch appliances, incorporates Racktivity’s patent-pending EnergyDNA technology to sample and interpret more than 30,000 readings per port per second and distill them into usable IT metrics. Reported Power Quality metrics include current (amps), voltage, power (kVAh), power factor, and energy

Racktivity EnergySwitch 1008 Power Distribution Unit

The ES1008 is a power distribution unit that provides real-time feedback to help users rein in energy consumption and maximize system-wide ROI.

consumption (kWh), all with better than 1% accuracy.

Other features of the ES1008 include remote monitoring and control via a Web-based interface or command-line interface access via Telnet, support for daisy-chaining, individual outlet-level switching, 15-minute short-term or seven-day long-term logging, event-driven logging, real-time true RMS measurements, predictive harmonic analysis, inrush current protection, sequential start-up, programmable thresholds for alarms and warnings, support for flash upgrade, and ultra-low energy consumption.

The ES1008 has a built-in temperature sensor, but it also fully integrates with a litany of available environmental sensors for enhanced temperature, humidity, security, motion, sound, and airflow monitoring. A front-facing color TFT reports at-a-glance voltage, current, power factor, and IP address information.



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PACKET POWER POWER LAB

NEW PRODUCT

by Kris Glaser Brambila

Power Profiling For Everyone

NEARLY EVERY DATA CENTER has considered replacing older gear with more energy efficient devices.

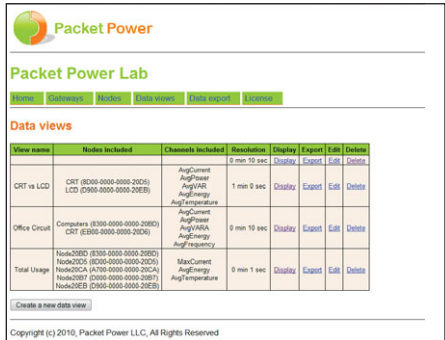
Packet Power helps companies know exactly how much they can save with Power Lab, a power usage analysis solution that enables businesses to create detailed energy profiles for nearly any IT device. Power Lab “makes sophisticated power profiling accessible to everyone,” says Steve Van Tassel, Packet Power CEO. “Companies use it to do detailed comparisons of how several different types of devices use power to understand which device is most efficient under which type of workload.”

Power Lab can measure voltage, current, power, volt amps, energy consumed, frequency, and temperature.

Power Lab is used in combination with Packet Power’s wireless Smart Power Cables, which collect a device’s power data, and are similar to the cables used in Packet Power’s general data center energy monitoring solution. Power Lab can be used to monitor and consolidate data from up to 80 devices in up to four locations.

“We offer Smart Power Cables that can be used with just about any device

that has a power cord and draws less than 100 amps of current,” Van Tassel says. Power Lab can capture power consumption data as often as every second and build power profiles over



Packet Power Power Lab

A hardware and software monitoring solution that helps businesses create detailed energy profiles for any device in the data center.

monitoring periods ranging from 10 minutes to 10 days.

Analyzing Power Lab’s power profiles is simple with its real-time data display, Web-based access, and ability to export data in several formats, including XML, Excel, and Access.



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UpcomingIT Events

For more Upcoming IT Events, see page 4, 12.

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.....
- ISSA Northern Virginia**
April 21, 5:30 p.m.
issa-nova.org
.....
- SIM Minnesota**
April 21, 2:30 p.m.
Northland Inn
7025 Northland Drive N.
Minneapolis, Minn.
www.simnet.org
.....
- AITP Akron-Student Project Presentations**
April 26
Akron, Ohio
www.akron-aitp.org
.....
- AITP St. Louis**
April 28, 5:30 p.m.
Crowne Plaza Clayton
7750 Carondelet Ave.
St. Louis, Mo.
stlouisaip.org
.....
- ISSA Metro Atlanta**
April 29, 6:30 p.m.
SecureWorks
One Concourse Parkway NE, 5th Floor
Atlanta, Ga.
www.gaisa.org
- MAY -**
Cincinnati Programmers Guild
May 5, 6:30 to 8:30 p.m.
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- SharePoint User Group**
May 5, 6 to 8 p.m.
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- Central Plains ISSA**
May 6, 1 p.m.
Wichita Marriott Restaurant
9100 E. Corporate Hills Drive
Wichita, Kan.
issa-cp.org
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- Interop**
May 8-12
Mandalay Bay Convention Center
Las Vegas, Nev.
www.interop.com
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- Cincy SQL**
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.....
- Cisco (TSHOOT): Troubleshooting and Maintaining Cisco IP Networks**
May 16, 9 a.m.
Online Live
www.nhnorthflorida.com
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- AITP Oklahoma City**
May 17
aitpokc.org
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- AITP Southwest Missouri**
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aitpspringfield.org

Authentication Options

Today's Trends Are Moving Well Beyond Passwords

by Carmi Levy

CHOOSING THE RIGHT FORM of authentication used to be simple: Add password protection to business-critical systems and applications. These days, the vulnerability of a password-only authentication strategy and the growing capability of alternative methods of protection are giving IT more choices than ever before.

To keep pace, today's security strategies must meet at least two of the following three requirements: something you know, something you have, and something you are. In this context, passwords are no longer enough. Here is a look at the broad range of major authentication choices.

Passwords

Increasingly sophisticated hackers can use brute-force software and processes to crack passwords. Lax corporate policies result in the same passwords being used for years. End users don't help matters much by using the same passwords across multiple systems.

"What's changed in the last few years and is in many ways driving all other forms of authentication is recognition that, even from a psychological human factors point of view, passwords just don't cut it," says Jim Fulton, vice president of marketing at DigitalPersona (www.digitalpersona.com). "This is starting to drive the need for password management that didn't really exist until about five years ago. People are starting to see that if they don't do something, they open themselves up."

Companies are responding to this growing need—and the growing number of mobile devices requiring authentication on formerly closed corporate networks—with a more methodical approach to password management.

"As long as we employ people, we'll continue to employ passwords as part of a multilayered approach to access control," says Tim Williams, lifecycle management product manager with Absolute Software (www.absolute.com). "But a minimum threshold for their effective use is the ability of the company to enforce higher password complexity standards, frequency of password changes, and even automated countermeasures, such as device wipes."

Don't Forget Your People

Even the most secure authentication solution isn't secure at all unless it's implemented in a balanced manner.

"We often forget that humans have to use these security solutions," says Robby Gulri, vice president of product marketing with Echoworx (www.echoworx.com). "If we make it so secure that it's too difficult to work with, chances are people will get frustrated and not use it at all."



Biometrics

This authentication category includes fingerprint, voice, retinal, and facial scans. More esoteric solutions can even analyze a user's DNA. The something-you-are component was until recently too expensive and complex for anything smaller than enterprise-class shops to consider. That's changing as hardware and software costs continue to fall and as the technologies themselves become less buggy and better integrated into existing systems.

"The big advantage is you can't really lose them or share them," Fulton says. "It's also exceedingly difficult to steal them."

Make Your Choice

Deciding on an appropriate mix of authentication methods isn't simply a matter of choosing the best ones. Every scenario is different.

"I don't think there's one magic pill that companies can take," says Robby Gulri, vice president of product marketing with Echoworx (www.echoworx.com). "They really have to evaluate for themselves on a system-by-system basis. They have to look at each area of the business and ask how impactful it would be to anticipate either theft or loss of the data in question."

Smart Cards

These electronic cards, activated either via swipe-based readers or proximity sensors, represent the "something you have" leg of the security triad. Despite their popularity in Europe, they've never really caught on in North America. The cost of readers, cards, and supporting infrastructure makes them relatively expensive and not easily scalable.

"Smart cards can frankly be kind of a pain to deal with, easy to lose, and difficult and expensive to provision," Fulton says. "They're better than a password in that you're more likely to know if it's been lost or stolen—because someone can't use it without you knowing you no longer have it—but they frankly don't add much more security to a solution because people can still pass a card around and share it."

As users become more mobile, Fulton adds, loss becomes a greater risk. Or they'll forget the cards at home and call the help desk because they can't log in. Users who simply leave the cards in their notebooks defeat the purpose entirely.

Tokens

Electronic key fob-like or USB-based devices that generate numeric sequences for secure log-ins have really caught on with road warriors. "This one-time password token is, from a security standpoint, very strong and has a lot of nice attributes," Fulton says. "Thieves can steal your token and it doesn't matter, and they can steal the entire computer and it doesn't matter."

The downside, adds Fulton, is they can be difficult to use, and they represent another device to carry around—and lose.

"The time that most people forget them is when they're getting ready to go on a trip," he says. "So the place where you'd need it most is where you're likely to not have it."

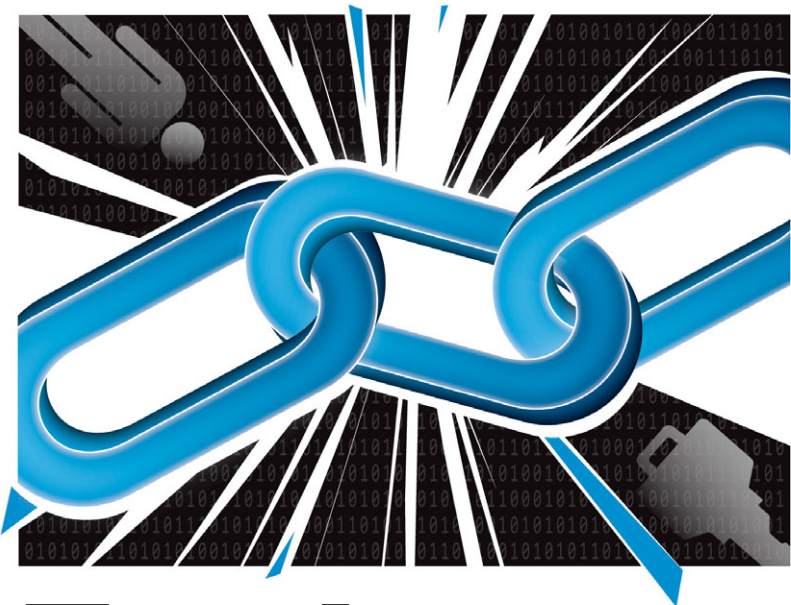
Key Points

- Authentication is no longer the simple process it once was. Basic passwords are a great place to start, but they're insufficient on their own. Users forget them, or use the same, easily guessed ones on multiple systems.
- A multiple-authentication strategy is the new security best practice. Layer at least two authentication methods to maximize protection in a cost-effective way.
- Balancing protection with usability is crucial to ensuring users don't find ways to neutralize security systems and processes.

This analysis can help dictate the appropriate method of authentication. "If the data isn't that sensitive—for example, with publicly available documents on a SharePoint site—then I probably shouldn't spend a crazy amount of time and money to protect it," Gulri says, adding that companies should analyze security needs business unit by business unit to arrive at a more holistic approach to security. That approach will need to balance security and usability.

"If a user has to go through six gyrations to access something, chances are you're losing productivity and time and frustrating the end user," he says. "What happens is users will either find shortcuts or not use it at all."

Whichever factors you ultimately choose, Gulri says having more of them is always better. "The more security you want to put in place, the more factors you have to include in your authentication strategy," he says. **P**



Employees & Security

Create A Culture Of Responsibility, Awareness & Common Sense In Your Data Center

by Dan Heilman
• • •

EVERY DATA CENTER strives to be 100% secure. Unfortunately, every data center is run and staffed by human beings, which means perfection is impossible: If employees aren't sending classified information via standard email, they might be backing up work files on vulnerable external storage devices. If they're not doing that, they could be accessing company files and data through mobile devices and remote connections.

Keeping data centers completely leak-proof might be impossible, but enterprises can create a culture of responsibility and knowledge that greatly increases security.

Education Is Key

The best way to raise employee awareness, experts say, is education—and follow-up. "Policies are an obvious first start, but [they] are worthless unless there is a continuous process to educate the masses," says Javier Jones, director of architecture and security for Bluewolf. "Let them know about the risks out there and create an atmosphere in which they know who to go to if they have any questions or concerns regarding security."

"The best corporate policies will have little effect if employees aren't aware of them," says Steve Suesens, category manager at Staples Technology Solutions (www.staplestechnologiesolutions.com). Thus, it's important to communicate clearly and regularly to employees about network usage policies. A good idea might be to start each year with a refresher course: a form they must sign or required live or on-demand training.

"This ensures employees are aware of and adhere to network policies," Suesens says. "In addition, take advantage of opportunities

throughout the year to remind employees of best practices, leveraging use cases, such as from current events, to illustrate the ramifications of security breaches."

It's All In The Follow-Through

Both employees and customers need to understand the importance of maintaining security protocol and following through on measures required to stay secure.

"Beyond the normal systems, such as card reader access, it boils down to two things: What controls you have in place to secure access in and out of your facility, and how often do you practice and test your folks on that?" says Mike Duckett, president and COO of CoreLink Data Centers (www.corelink.com).

CoreLink, which hosts multitenant data centers, requires customers in its environment to be PCI-compliant, meaning they must adhere to security standards developed for electronic financial transactions.

"What we do on a regular basis is not just test and train them on physical security, but also what to look for," Duckett says. "If you have an environment with customers coming in and out, you look for the badges—you look for indications that they belong in the center. Process control is one thing, but there's nothing better than the people watching for things that are out of place in the data center."

Darryl Cox, manager of audit and control at QTS (www.qualitytech.com), says that security training goes to another level at his company. Employees are trained to be aware of penetration points both on the data center's physical site and over the phone.

"We tell our people that if it's not public domain information—data that you can get from our Web site or from Google—don't

give that information out unless the person you're on the phone with has been vetted," he says. "We require our customers to issue a pass phrase. If they're unable to do that, we ask employees to call them back on a number that's on one of our customer directories. If they answer the phone when you call, you know you've got the right person." Basically, Cox says, "Our approach is [to] become a human firewall."

The Right Tools

Tools exist that can help encourage data center employees to be more responsible with their security. According to Richard Stiennon, chief research analyst for IT-Harvest, access cards and other forms of strong authentication are essential, as are access logs that are reviewed regularly and alerts that are generated if someone enters the data center during off-hours.

"Administration of servers is done only through a privileged user access management system that enforces unique logins for each person," Stiennon says.

Employing a third party is also a viable option: Jones says that every quarter, Bluewolf brings in an outside security firm to do a complete audit on the company, making sure that procedures are up-to-date and being followed correctly. "Security issues change daily or weekly," he says. "Without a process to continuously evaluate and educate, a breach is always imminent."

Jones also advises regular software updates, firmware updates, and strong but flexible IT security practices. "Forcing users to use very complicated passwords and security tokens will equal written-down passwords on sticky notes in the top drawer," he says. "If you make security easy to use, users will be secure by default

Key Points

- Continuous, ongoing security training is essential for both employees and customers.
- Access cards, access logs, and other tools are a good complement to human diligence.
- Security risks don't just come in person—be aware of phone and Web communication, as well.

and will want to practice security." (For more on smart authentication, turn to "Authentication Options" on page 14.)

Be Aware Of Threats

All enterprises are susceptible to security breaches, and even small companies should be aware of the data, resources, and systems that others are trying to access. In fact, one-person data centers might be the most susceptible to a breach.

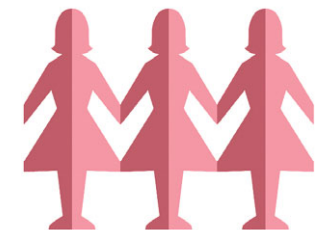
"There is an endless stream of traffic looking to gain access to anything on the other end," Jones says. "Botnets don't know who you are or what device is at a certain IP address, but they hit all IP addresses in random order and look to exploit anything you have that is exploitable, whether you are a large enterprise or a home user. Once an exploit is found, they then use that as the foot in the door to get into your enterprise."

With the right tools, the right people, and the right training, the risk of a security leak can be minimized, if not eliminated. Your enterprise must create its own culture of responsibility in its own way, but establishing and maintaining it is essential.

"The atmosphere should also be such that if an end user, technician, or anyone else thinks there may have been a security breach, they should immediately turn the issue over to the right party," Jones says. "Security is everyone's responsibility." ■

Efforts Made To Increase Number Of Women In IT

The CompTIA Educational Foundation has created the Women in Information Technology Council with the goal of working to inspire women to enter the IT profession. Chairing the council will be Susan Krautbauer, of electronics manufacturing services company Elcoteq, with Jean Bredeson, of Service 800, as vice chair. Both bring a wealth of experience to their new roles. The National Center for Women & IT reports that the number of women entering the IT field is going down at a remarkable rate. Just 25% of IT professionals were women in 2009, as opposed to 36% in 1991. In 1985, 37% of students receiving computer and information science degrees were women; in 2008, that figure was 18%.



DDoS Attacks Surpass 100Gbps Mark For First Time

According to a survey Arbor Networks conducted of 111 self-classified Tier 1, Tier 2, and other global IP network operators, DDoS attacks have surpassed the 100Gbps mark. In addition, attacks have increased in bandwidth by 102% during the past 12 months and by 1,000% since 2005. In a release detailing its sixth annual "Worldwide Infrastructure Security Report," Arbor Networks characterizes 2010 as the year DDoS attacks became mainstream, as many attacks were made against popular Internet services and other well-known targets. Arbor reports that application layer attacks reached an all-time high, while service providers experienced significant operational expense, revenue loss, and customer churn impact. This year, Arbor Networks predicts botnet-driven DDoS attacks will likely continue in a low-cost, high-profile variety.

Desktop Video Not Highly Coveted

Of the 5,400-plus businesspeople that Forrester Research surveyed for a recent "Information Workers Are Not Quite Ready For Desktop Videoconferencing" report, 72% indicate they don't want desktop video. Overall, 30% of businesses say they have implemented desktop video, while another 19% plan to. However, of the companies that have desktop video, only 15% of employees report having access to it. Among those most likely to have it are top-level CEOs, directors, presidents, and vice presidents. Forrester reports that 31 to 42% of those with such titles report using desktop video. Top uses of the technology include routine communications within the company (51%), executive meetings (41%), and distance learning and training sessions (33%). Another 30% of usage was tied to customer meetings, think sessions, and meetings with partners. Of the 13% of employees who don't have desktop video but desire it, 61% state they would use it for routine internal communications, 44% for distance learning/training, 43% for brainstorming, and 35% for better connecting with remote workers.

Cisco Net Income Drops

Although Cisco posted a 6% gain in its net sales during the second quarter when compared to the same period last year (up to \$10.4 billion from \$9.8 billion), its net income was down 17.9% (down to \$1.5 billion from \$1.9 billion), and its earnings per share dropped from 32 cents to 27 cents, a 15.6% decline. The company's non-GAAP results were also down; net income dropped 11.2% (at \$2.1 billion from \$2.3 billion), and earnings per share declined 7.5% to 37 cents, compared to 40 cents a year ago. Cash flow in the second quarter, however, rose to \$2.6 billion year over year from \$2.5 billion.

Encourage Common Sense

An often-overlooked key to employee responsibility in the data center is one that applies at any company: common sense. Employees must be made to understand the importance of safeguarding data on company computers, but also respect what those computers are to be used for.

"Make sure employees know that computers are for business use only," says Steve Suesens, category manager at Staples Technology Solutions (www.staplestechnologiesolutions.com). "They should not install or store anything on their machines that is not a business necessity. They should also not access the Internet using unsecure connections."

Simplified Data Center Construction

Keep Your Construction Project From Becoming Too Complex Or Too Costly

by Cynthia Harvey

ALBERT EINSTEIN ONCE SAID, “Everything in life should be as simple as possible, but not more simple.” That advice is particularly appropriate for companies that are beginning the process of designing and building a new data center.

Constructing a new data center is complicated. You have to find the right site, make sure you have sufficient power and bandwidth available, plan for adequate cooling, and find the best technology for your needs. You have to plan to deal with disasters and security threats. And you have to do all this while accurately predicting what you’ll need in five or 10 years and while keeping costs under control.

The process can quickly become overwhelming for small to mid-sized enterprises that don’t build new facilities very often. However, experts offer a few tips that can help simplify the process and reduce both your short-term construction

Key Points

- Many data center construction projects become more complicated than they need to be because companies haven’t adequately budgeted for the project.
- Experts recommend that companies plan to grow their data centers incrementally with a modular approach.
- Standards-based solutions are generally easier to manage and less costly than their proprietary counterparts.

costs and your long-term costs for operating the data center.

Start With A Reasonable Budget

One of the quickest ways to complicate a data center construction project is to budget too little money. Steve Borley, vice president of sales and

marketing for Data Specialties (www.dataspecialtiesinc.com), a data center design and build firm, says the most frequent mistake that he sees is “lack of capital investment and lack of review of return on investment.”

When companies don’t budget enough money for the data center, they sometimes cut corners or make poor decisions that end up costing far more than they saved. “We find people sometimes don’t have the budget to build the data center correctly, and later on, once they’ve built the data center, they don’t get the performance they were hoping to get out of it,” Borley says.

Carlton Griffis, senior product manager for data center design and construction company Alcatex (www.alcatex.com), explains that businesses are accustomed to estimating construction costs based on the number of people in a facility. But because of the special requirements of a data center, companies that try to budget this way often find that they only have “about a tenth of what they need,” Griffis says.

Do Your Homework

Like insufficient funding, insufficient understanding and insufficient planning can also lead companies to make mistakes that increase complexity and expenses. Before you begin a project, “do your own homework,” Borley recommends. “Don’t rely on contractors and engineers to know everything.”

Doing your homework is particularly important when it comes to site selection. “The No. 1 mistake that we see is, unfortunately, lack of due diligence,” Griffis says.

That due diligence involves first properly estimating your future needs for power and bandwidth. Rudy Rangel, senior account manager at Rackmount Solutions (www.rackmountsolutions.net), recommends that companies plan for what they think they’ll need and then add a little bit more to their projections.

Second, companies need to make sure the local utilities and network providers

can actually support those future needs. If not, they need to select a different site for the data center.

Plan Ahead For Modular Growth

Taking a modular approach means having an orderly plan for expanding your data center. That could mean buying actual prefabricated, self-contained modules or it could simply mean having extra space, bandwidth, and power capacity that you can turn on when you need it. In either case, a plan that allows for scalability greatly simplifies matters when the company experiences growth.

“Focus on a modular, scalable solution,” Borley advises. “Make the room easily expandable, make the UPS service easily expandable, make the mechanical system easily expandable. The last thing you want to do is build a data center and then have to turn it off, causing major disruption, in order to expand it.”

Rangel echoes that advice, recommending that companies decide on a yearly budget for adding capacity to the data center. However, Rangel notes that it’s equally important to stick with the plan. If you have empty space in your data center that’s set aside for future server cabinets, “don’t let stuff pile up in it,” he says. He adds that his company frequently hears of data centers where empty space has been filled with filing cabinets or desks. Then, when it comes time to expand, the company has to head back to the drawing board.

Stick With Standards

One final way to simplify the plans for your new data center is to adopt standards-based technology. “One thing we preach strongly is ‘Stay away from proprietary products,’” Griffis says. “Don’t get caught up in the trends. Stick with the proven technology, regardless of the manufacturer.”

Standards-based solutions are generally easier to manage and maintain. They also usually cost less and give companies the option of sourcing products from more than one vendor. ■

Lowest Price vs. Best Value

If you’re building a new data center, it can be tempting to select the lowest bidder or the lowest-priced equipment. But despite its appeal, that approach can be more costly in the long term, experts warn.

Steve Borley, vice president of sales and marketing for Data Specialties (www.dataspecialtiesinc.com), says, “Because of the recession, we’ve seen an awful lot of general contractors say to clients that they can build a data center and then find it’s a little more difficult than they had first anticipated. So they—the customers—end up being charged far more than they had anticipated, and far more than a data center expert would charge them.”

Rudy Rangel, senior account manager at Rackmount Solutions (www.rackmountsolutions.net), says that companies also frequently make the same mistake when it comes to purchasing equipment for the data center. For example, companies will buy the cheapest racks for their servers, only to find that they don’t hold up and need to be replaced within a couple of years, costing more than if they had purchased a high-quality rack in the first place. “The best bang for the buck is what you need in a data center,” Rangel says.

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BUYING GUIDE

BUYING TIPS:

Data Center Furniture



by Blaine Flamig

IF ONLY BUYING data center furniture were as easy as walking into a store, pointing at various items, and declaring, “I’ll have that, that, and that.” But, alas, things are a bit more complicated. The following advice from several experts will help ease the task.

Form and function. Before buying furniture, do some planning first, says Rackmount Solutions Account Manager Susan Wynne (www.rackmountsolutions.net). “Know the function of the room. Have in mind a design or layout of the space you’re wanting to create. A sketch or draft of the room with the various components in place is helpful,” she says. Additionally, know the dimensions of the space and furniture to ensure you meet requirements. Also helpful is knowing how a workstation

Buyers’ Checklist

- ✓ **Seek out quality.** Although looking for deals can help companies on a tight budget, sacrificing quality as a result can end up costing companies more in the long term, especially if buying from vendors that don’t offer lifetime warranties on furniture.
- ✓ **Know the delivery terms.** Before buying furniture, determine if the delivery includes bringing it inside the facility, requires a lift gate or loading dock, and includes assembly or puts the responsibility on you or a third-party installer.
- ✓ **Go modular when possible.** Buying components that are interchangeable lets you modify the setup to meet changing needs, including downsizing or expanding space. Increasingly, individual furniture units can be mixed and matched and layout configurations easily altered.
- ✓ **Build vertically.** Purchasing components that support building vertically promotes space efficiency.

will be used and by how many people to ensure overall comfort.

For companies with multiple users plying away over 24-hour shifts, “height adjustability/maneuverability is a must,” says Office Organix President Jennifer Monroe (www.officeorganix.com). Beyond helping avoid static seated postures and fatigue from sitting, she says, “it’s common knowledge that multiple postures over the workday lower the risk of injury on the job.

Most high-end electrically adjustable IT furniture manufacturers offer an excellent warranty on the motor or moving parts, too, so the concern about breakdown or repair is minimal.”

Weighty issues. Other considerations to keep in mind include built-in grommet cable management and power-port features to manage connections and wiring, Monroe says, as well as warranty stipulations and weight specifications/limitations. “Some ‘fine print’ often says that overall a unit may accommodate a total of 1,000 pounds, but if you read closely, per-shelf weights are quite different,” Monroe says, so “avoid overloading and nullifying the warranty.”

Kristen Speranza-Diamond, vice president of Hergo (www.hergo.com), says that it’s important to stay up-to-date with changing technologies. “All of the equipment and LCDs are becoming much

Key Terms

- Adjustable height.** Refers to components users can raise or lower for a better individual fit. Some higher-end furniture can be adjusted electronically.
- Cable management.** Built-in grommets, channels, or other features to manage cables and wiring.
- Modular.** Furniture components that are interchangeable or can be easily modified.
- Recessed.** Platforms that sit lower than the tabletop itself, sometimes at an angle, to allow for easier viewing of monitors.

less expensive, so everyone is upgrading and making the transition to go compact,” she says. Thus, flat-panel arms are more important than ever in terms of addressing space efficiency and ergonomics. “With the economy still in a precarious state, office and lab space is at a premium, and it’s beneficial to go vertical and make the best use of square footage,” she says.

Know the maker. Doing your due diligence to find a trustworthy, reliable vendor is important, says Eli Hertz, Hergo CEO and president. “You want a vendor that you can invest in for the future. You don’t want to deal with a company that will only be around for a one-time purchase.” Similarly, search for a vendor that can offer a complete solution, says Speranza-Diamond, so you’re not in a position of having to go to multiple vendors to complete a project. **P**

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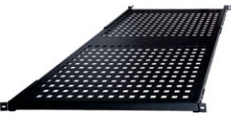
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Data Center Furniture

Product

Description

Data Center Depot Hercules LAN Station



The Hercules LAN Station has an industrial-strength, super heavy-duty four-post frame and measures 84 x 72 x 36 inches. It's easy to assemble and has a 72- x 36-inch work surface, two upper shelves (72 x 24 inches), two steel legs with levelers, and three horizontal back panels.


- Shelves can hold up to 800 pounds and are adjustable in 1-inch increments
- Legs are made of 14-gauge tube steel
- Shelves are steel-reinforced and have high-density laminate
- 72-inch-high frame available for the same price as the 84-inch model
- Available in a variety of sizes
- Lifetime guarantee

Best For: Data centers in need of an easy-to-assemble, industrial-strength LAN station.

Price: Starts at \$1,020

Contact: (877) 429-7225 | www.datacenterdepot.com

Data Center Depot Samson LAN Station



The Samson LAN Station features a super heavy-duty cantilever frame and measures 84 x 48 x 36 inches. The work surface measures 48 x 36 inches, and the two upper shelves measure 48 x 24 inches. The Samson comes with two horizontal back panels.


- Shelves can hold up to 450 pounds and are adjustable in 1-inch increments
- Legs are made of 14-gauge tube steel
- 72-inch-high frame available for the same price as the 84-inch model
- Lifetime guarantee
- Free consultation
- Available in a variety of sizes
- Optional accessories, including mobile server cart and pull-out keyboard shelves, are available

Best For: Data centers in need of a super heavy-duty LAN station that is easy to adjust or expand.

Price: Starts at \$966

Contact: (877) 429-7225 | www.datacenterdepot.com

Eaton Wright Line Profile Advanced Console System



Created specifically for high-density flat-panel display monitoring applications, Eaton Wright Line's Profile Advanced Console System features a sophisticated, versatile design that makes it ideal for a multitude of technology-intensive environments. Created with ergonomics in mind, the Profile system is available with manual height-adjustable keyboard platforms as well as single, dual, or heavy-duty electronic height-adjustable work surfaces. The system is ideal for mission-critical environments in which sit-to-stand accommodation is desired.


- Flexible, modular, and scalable
- Ergonomically designed with height-adjustable lifts
- Individualized personal controls
- Flat-panel mounting solutions
- Expert tech integration
- Guaranteed for lifetime of equipment
- Versatile, customized, collaborative system design

Best For: Emergency/911 dispatch operations, network operation centers, mission-critical environments, process control environments, medical imaging reading rooms, and trading floors.

Product

Description

Hergo UNI8436 Workstation



The UNI8436 Workstation provides a setup that combines everything a company needs to get the job done in a single, compact frame assembly.


- 11 GA metal-slotted frame measuring 84 x 36 inches (HxW)
- 36- x 30-inch (WxD) laminated desktop with articulating keyboard tray
- Two 18.5-inch-deep mounting shelves with upward or downward brackets
- Leg-mounted CPU holder
- Track-mounted flat-panel arm
- Optional 60-inch-long vertical cable management and eight-port power strip

Best For: Small or home offices where conserving space is necessary.

Price: \$980

Contact: (888) 222-7270 | www.hergo.com

Rackmount Solutions Heavy Duty LAN Rack/Computer Station



The Heavy Duty LAN Rack/Computer Station from Rackmount Solutions is designed for heavier equipment loads, with each shelf supporting more than 850 pounds. All shelves are adjustable in 1-inch increments and may be placed anywhere on the frame. This workstation features a high-quality tube steel frame and unlimited variations when combining different LAN station widths, plus corner stations.


- Fully welded four-post frame with 2-square-inch, 14-gauge steel virtually eliminates vibration
- 14-gauge steel horizontal back panels for maximum strength and stability
- Available in 36-, 48-, 60-, and 72-inch widths; 84 inches high
- 1.25-inch-thick work surfaces support more than 850 pounds each
- LAN rack ships fully enclosed in a shipping crate to protect from damage

Best For: Anyone who needs shelving that can support heavy loads or flexible configurations.

Price: Starts at \$1,154

Contact: (866) 207-6631 | www.rackmountsolutions.net

Rackmount Solutions Recessed Monitor Corporate Training Tables



Rackmount Solutions heavy-duty Recessed Monitor Corporate Training Tables allow plenty of surface space for manuals and workbooks while giving users lines of sight to the moderator and any video instructions being displayed in the front of the room. These tables are customizable with a variety of LCD mounts and keyboard trays.

- Choose from stock 36-, 48-, 60-, or 72-inch widths or a custom configuration
- Dropped monitor platform is on a 22% angle, 4 inches in front and 7 inches in back, for clear view of instructor
- 14-gauge steel legs and a 1.25-inch-thick laminated table surface make these units almost indestructible
- Table adjusts from 26 to 32 inches high to accommodate various employee heights
- Includes out-of-sight cable management under the table surface

Best For: Corporate training areas that require versatile, highly durable tables that must cater to multiple users and frequent ergonomic adjustments.

Price: Starts at \$308

Contact: (866) 207-6631 | www.rackmountsolutions.net

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Blaine Flamig

Eaton Wright Line LMS (Laboratory Management System)



Totally modular and scalable, Eaton Wright Line's LMS (Laboratory Management System) provides the highly efficient design and configuration capabilities required in today's analytical, computer, and electronic laboratory environments. The LMS helps create efficient work space and easy modular configuration/reconfiguration, including heavy-duty storage solutions located above and below the work surface, to maximize vertical space, thus allowing companies to maximize any workstation footprint.

- Full frames support components of various widths
- Available in nine widths and four heights
- Reverse I-beam construction; constructed with 12-gauge steel
- Superior leveling capability
- Unique trapezoid-shaped hooking mechanism
- Oversized vertical and integrated cable management
- Rigid, black tubular stabilizers and double-strength welded frame
- ANSI/BIFMA-certified performance
- Lifetime warranty

Best For: Data centers, computer labs, electronic labs, and PC repair.

Eaton Wright Line LCD Lift



Eaton Wright Line's patented LCD Lift is an innovative flat-panel solution that's designed to offer simplicity and security. The lift recedes into the desk to completely transform the workstation into a multipurpose platform while providing security and safety for the enclosed monitor.

- Space-efficient constant-force spring mechanisms
- Integrates into most 15- to 19-inch LCD flat-panel displays with VESA-compatible screen mounts
- Lifts out at the touch of a button
- Noiseless
- Technology can be specified to fit Eaton Wright Line's LINX modular work surfaces

Best For: Education and training environments, monitoring centers, computer labs, lobby/reception areas, and personal workstations.

Hergo Personal Workstation



The Hergo Personal Workstation is a fully modular right- or left-hand user solution. Designed for a single- or dual-monitor setup, this high-profile system provides maximum vertical mounting space for overhead storage and suspended or track-mounted flat-panel screen management.

- Double 11 GA metal-slotted frame unit measuring 84 x 60 inches (HxW)
- 72- x 30-inch (WxD) laminated desktop with left or right return (18-inch deep); also available in 60- x 30-inch configurations
- Monitor track shelf with LCD suspension system
- 18.5-inch-deep mounting shelves with upward or downward brackets
- 30-inch-wide metal-locking storage compartment with laminated, hinged flip-up door
- Power and cable management options

Best For: Multitaskers who require additional work surface and storage space.

Price: 84- x 60-inch unit with 72-inch L desktop is \$2,745 with monitor suspension, file cabinet, and side panels, or \$2,195 for track-mounted LCD and no file cabinet or side panels.

Contact: (888) 222-7270 | www.hergo.com

Rackmount Solutions Bravo Power Corporate Training Tables



Bravo Power Corporate Training Tables from Rackmount Solutions make it easy to connect your monitor, an Internet connection, and additional peripherals to Rackmount heavy-duty corporate training room tables by using a recessed, pop-up, or under-table power source. These tables are customizable with a variety of LCD mounts and keyboard trays and are ideal for environments where a power source on the table enhances usability and convenience.

- Choose from stock 36-, 48-, 60-, or 72-inch widths or create a custom configuration
- Common power modules used are two CAT 6 RJ-45 and two 15A/125V receptacles with circuit breaker, but modules can be interchanged to fit your needs
- Heavy-duty 14-gauge steel legs and a 1.25-inch-thick laminated table surface make these units almost indestructible
- Superior strength with support for up to 900 pounds

Best For: Corporate training areas that require versatile, highly durable tables with the convenience of power built in.

Price: Starts at \$439

Contact: (866) 207-6631 | www.rackmountsolutions.net

Uptime4u Anthro Elevate Electric Lift Corner Dispatch Console



The Anthro Elevate Electric Lift Corner Dispatch Console available from Uptime4u utilizes the space-saving design of a corner console combined with the ergonomic benefit of an electric-lift adjustable-height unit. Six or more flat-panel monitors can be fully utilized while keeping everything within easy reach of the user. Network cables are efficiently routed to prevent work surface clutter.

- Fits true to corner and utilizes every inch of wall space
- Console height adjusts quickly and quietly at 1.5 inches per second
- Maximum flexibility with keyboard/mouse platform that swivels, tilts, and moves in and out and up and down
- Sturdy steel legs are mounted solidly to base and frame

Best For: Data centers, control rooms, computer rooms, and dispatch and 911 centers where users need ergonomic adjustability and modular design in a heavy-use environment.

Price: Starts at \$3,500

Uptime4u EDP Contour Advance Data Center Console



The EDP Contour Advance Data Center Console available from Uptime4u offers easy adjustment of sit/stand features at the press of a button. Ergonomic design combines with durable construction, flexibility, and well-planned wire management in this console solution. Numerous configurations are available for your specific needs, including single, double, and team workstations. This console is engineered to withstand frequent usage and to meet public safety sector standards.

- All-steel frame construction offers long-term resilience, even in 24/7, multishift environments
- Independent height adjustments for keyboard and monitor deck
- Accommodates a range of accessories, including display arms, whiteboard inserts, and acoustical fabric wraps
- Secure storage of dedicated CPU modules either beneath the work surface or in a matching enclosure

Best For: Demanding call center and public safety environments that must be up and running 24/7.

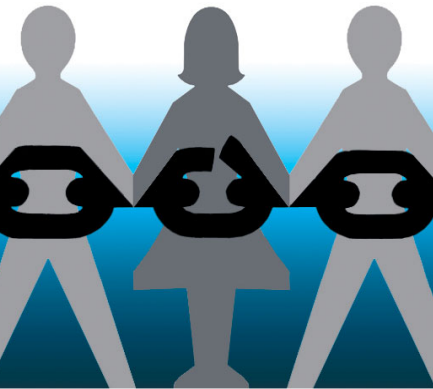
Price: Starts at \$8,000

Social Networking Sites Face Increased Threats From Malware

Social networking sites such as Facebook, Twitter, and LinkedIn continue to be among the most popular online communities threatened by malware attacks, says a recent report from Sophos.

The report, titled “Security Threat Report 2011,” examined IT security trends during the past year and highlights the threats that should be monitored this year.

Among the study’s most relevant findings is a discrepancy between the number of malware threats detected for social networking sites and the level of threat perceived by businesses. Of the respondents, 41% answered “no” when asked if they thought their employees’ behavior on social networking sites could endanger their company’s security. And although 57% of businesses feel that their employees are sharing too much information online, less than half of those companies limit access to Facebook, Twitter, and LinkedIn, and less than 25% of businesses completely restrict access.



The seeming lack of concern over social networking threats comes as somewhat of a surprise, as 40% of respondents state that they have encountered malware when visiting social networking sites. About 67% say they have been spammed via social networking sites, and 43% say they have been tricked by phishing attacks originating from social networking sites.

Facebook Faults

Sophos’ report points out that Facebook, one of the largest social networking communities on the Internet, is also the most targeted when it comes to security attacks. That’s largely because of Facebook’s application system, which lets anyone create and distribute a game, add-on, or tool that interacts with the information on users’ profile pages. Sophos points out that it’s not far-fetched to believe that some of Facebook’s apps could be created by malicious users.

The report suggests that in order to combat Facebook’s app problem, Facebook should adopt a “walled garden” method already used by Apple’s App Store, where all applications available to users have been approved by Apple, thus protecting users from malicious content. The idea seems to be well-grounded, as more than 95% of respondents to the Sophos survey state that it would be better for Facebook’s security if it used a “walled garden” approach. Sophos’ study found that, because of Facebook’s app policy and other privacy concerns, 30% of users say they will possibly quit Facebook, while an additional 30% say they are highly likely to.

by Kris Glaser Brambila

Take A Good Look At Your Rack Options

Security, Ventilation & Cabling Are Just A Few Issues To Consider

by Sue Marquette Poremba

WHEN IT COMES to buying racks and cabinets for data center servers and other equipment, there are countless options available. Racks and cabinets are often approached as an afterthought or commodity, says Anthony Wilson, vice president of sales at AFCO Systems (www.afcosystems.com). But they shouldn’t be. “Enclosures should be looked at as part of the overall infrastructure design,” Wilson says. “One of the reasons you want to do this is if you look at the elements of the data center—the power delivery, the cooling, the cabling, and the IT equipment itself—they all come together at the enclosure. That’s why it should be considered as part of the overall strategy and not simply a piece of steel furniture.”

Range Of Choices

Racks available today range from small, open-architecture wall-mounted versions to completely enclosed cabinets that are available with climate control and sound-dampening features along with limited access and audited entry.

- noting that there are options for heat dispersion and airflow.
- Dowdy adds that the decision between a closed or open rack should be based on the following points:
- The scale, size, and schedule of the IT project
 - The role and function of the IT department within the organization
 - Budget considerations
 - Space available to accommodate the electronics
 - Security considerations
 - Upward mobility and future expansion possibilities

Security, Ventilation & More

Locks come into play whenever security is an issue. “When security is important, we recommend various styles of locking mechanisms to the doors, and also if the sides on the cabinet are removable, we recommend locks on the sides, as well,” Gaw-Betz says.

Proper ventilation is also a prime consideration when making a cabinet purchase, Wilson says. “One of the key

Key Points

- Racks available today range from small open architecture wall-mounted versions to completely enclosed cabinets.
- Racks should be viewed as part of the entire server infrastructure.
- Ventilation and airflow are two of the most important considerations.

Wilson explains that the cabinet design needs to account for the airflow pattern of the servers, which is usually front to back. “However, if you are running industrial-class switching technology, you’ve got an entirely different airflow pattern,” he says. “The ‘breathing’ is side to side.” How the airflow is directed will determine not only the cabinet choice, but the cabinet setup in the data center.

Cable management is another key issue to think about. “Your enclosure needs to accept the cable in such a way that it allows the rack to do its main job, which is to provide a positive environment for the server,” Wilson says. The cabinet needs to be set up to arrange any type of cable system, whether it is under the floor, overhead, or a combination of both. “You want to manage the cables in a nice, neat, logical fashion while making sure the cables don’t interfere with the airflow,” Wilson adds. “And if you have copper cables, you want to be conscious of the temperature in the enclosure because that can affect the performance of the cable.”

Steel is overwhelmingly the top choice as the best material for cabinets. Most cabinets are made of cold-rolled steel, Gaw-Betz says. However, steel isn’t always the best material for every environment. Material such as stainless steel and aluminum are also available and, for environments with high humidity and salt air, Gaw-Betz says, you might want to consider Galvaneal, which is coated steel. ■

“The wallmount racks are a good basic starting spot and provide economical and effective support for small applications where the room or space is usually limited and focused on functionality.”

- Rackmount Solutions’ David Dowdy

David Dowdy, account manager with Rackmount Solutions (www.rackmountsolutions.net), says, “The wallmount racks are a good basic starting spot and provide economical and effective support for small applications where the room or space is usually limited and focused on functionality.”

Dowdy adds that the wallmount racks have evolved into wall-mounted enclosures that can keep equipment secure and well organized and still be capable of growth. “One of the recent trends is to place server and other networking electronics in open work areas where people are present,” Dowdy says. “This trend has led to the advancement of cabinets that are people-friendly in terms of noise generation and operate well outside the closet. IT applications are also requiring servers to be placed in environments where the temperature is a concern, advancing the need for air-conditioned cabinet enclosures.”

In choosing the right rack, selecting between a closed model and an open one is an important consideration. Kathy Gaw-Betz, president of Data Center Depot (www.datacenterdepot.com), says if cable needs to pass through the cabinets or if airflow is a consideration, the cabinet should be open. If security is a top priority, a closed-sided cabinet with doors should be considered,

resources the enclosures have to manage is the airflow. The amount of money spent cooling and pushing the air is a significant expense of running the data center, so the cabinet needs to do a good job of managing the airflow.”

Top Considerations

- With so many different options available, what should be the top considerations when purchasing a rack or cabinet? It really depends on the type of rack, says Kristen Speranza-Diamond, vice president at Hergo (www.hergo.com).
- “If it is an open rack or workstation, you have to make sure you address the essential points,” she says. “Is the racking product modular? Are the components interchangeable? Looking beyond the initial purchase is critical. You may only have two people working in a space now, but what about five years from now? Will you need to add to your workforce? Will you need to upgrade or add equipment for maximum productivity? You want to find a system that can keep up with the growth of your business. You do not want to be in a position where you are forced to replace your original rack because the components you need to add on or modify are no longer available.”
- With a cabinet, the priority should always be a universal, rugged, high-quality structure that will accommodate, protect, and secure valuable equipment. “It is important to discuss the product that will be rackmounted to make sure it is compatible,” Speranza-Diamond says. “You also want to address whether a free-standing or wallmount cabinet will be the best solution depending on the amount and weight of the equipment to be mounted.”

So when it comes to purchasing a cabinet system for data storage, the best system, Speranza-Diamond says, really comes down to one thing. “Customers want a cost-effective, space-saving, durable solution. It all depends on the user, application, and environment.”

PHYSICAL INFRASTRUCTURE

BUYING GUIDE



BUYING TIPS:
Fire Protection

by Nathan Lake

YOU ALREADY HAVE a lot on your plate if you’re in charge of protecting the data center. Hackers, hardware and software failures, and changes to the physical infrastructure are all concerns. Fire protection is one issue that probably isn’t on top of your list, but if your data center isn’t capable of suppressing fires, all the rest of your hard work may be for naught. Here, we’ll examine what key features you should look for when investing in data center fire protection.

Alert options. You’ll need to invest in a smoke and fire detection system that can alert employees and IT staff to problems. Some models are capable of detecting the various stages of a fire, such as visible smoke vs. flaming fire vs. intense heat, to allow you to set off alarms or activate various stages of fire protection.

Regardless of which type of suppressant is selected, you’ll need to know at what

stage during a fire the detection system should trigger the release. According to Steve Joseph, director of marketing development for Xtralis (www.xtralis.com), “Unnecessary or poorly timed suppression

Buyers’ Checklist

- Find a smoke/fire detection system that meets the needs of your data center, in terms of stages of fire protection and number of physical detection locations.
- Research the various clean agent suppression options and make sure your sprinkler system is capable of working with the clean agent suppression system.
- Invest in an emergency power off system to shut off electricity when a fire is detected.

dumps must be avoided since the cost of such mistakes is enormous, because a volume of clean agent sufficient for even a modestly sized area can cost tens of thousands of dollars to replace.” In short, effective detection is key, as the suppression system is only as good as the detection system initiating the release.

Suppression options. Fire protection is generally broken down into water and non-water options. The obvious downside to using a sprinkler system is that electronic devices and water can be a bad combination, especially in situations that are started by electrical fires. Thus, most data centers opt to go with a clean agent suppression system, which is designed to leave no residue and is safe for both electronics and people, unlike some chemical-based fire protection.

“Some clean agent suppressants are complex chemical compounds which act on the fire in various ways, such as reducing the heat, while others are pure inert gases which displace the oxygen to inhibit combustion,” Joseph says.

Emergency power off. Nearly all data centers also install an EPO (emergency power off) system, which will shut off any electricity to the area where the detector senses a fire. Look for models with industrial-grade contactors, heavy-duty relays, and hard-piped wiring to prevent any accidental shut-offs. The EPO will need to be able to automatically work with your fire detection system.

Key Terms

- Agent storage container.** The assembly or unit that stores the clean agent fire suppression liquid until it needs to be released when prompted by the suppression control panel.
- Class C.** Fire breakouts that involve electrical equipment where a non-conductive extinguishing agent must be used.
- Clean agent.** A type of fire suppression system that leaves no traces behind and won’t damage electronic equipment.
- Deluge.** A system where all the sprinklers connected to the water piping system are open. If the deluge valve opens due to a signal from the fire alarm system, the entire area will be sprayed with water.
- Early warning smoke detector.** A passive detector that uses ionization and photoelectric sensors.
- Heat detector.** A unit that sends a response when the convection of thermal energy changes the temperature of the device’s heat-sensitive element.
- Suppression control panel.** The unit that houses the interface you use to control the fire protection system, including managing the smoke and fire detection systems and report alerts or sound alarms.
- Very early warning smoke detector.** A type of smoke detector that actively samples air particles via aspiration to find non-visible smoke.

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Fire Protection

Product

Advanced Fire Protection Systems Fire Alarm Systems



Description

AFPS (Advanced Fire Protection Systems) has been installing state-of-the-art fire alarms for years, and the models are often integrated with access control, CCTV, and security management systems. AFPS also offers a variety of services and capabilities to span your fire system's entire life cycle.

- Consultation and design
- Turnkey project management
- Installation
- Certification and operator training
- Inspection and preventive maintenance
- Central station monitoring

Best For: Enterprises looking for a company that can handle the end-to-end installation and maintenance of fire protection.

Ansul Sapphire Fire Suppression System



Description

Ansul's Sapphire Fire Suppression System is a fixed-nozzle system that uses 3M's Novec 1230 fire protection fluid to quickly quell fires without causing harm to sensitive equipment, people, or the environment. The Novec 1230 is stored in cylinders in a fluid form, and upon discharge, it instantly vaporizes as it absorbs heat to protect spaces. Every Sapphire system is custom-engineered for the specific application using the most effective and efficient arrangement of storage, actuation, distribution, and discharge components.

- Meets NFPA 2001, so it's safe for occupied spaces
- Capable of automatic detection and actuation or remote manual activation
- Effective on class A, B, and C fires
- Meets UL/ULC, FM, and other international approvals
- Zero ozone depletion

Best For: Areas where an electrically non-conductive medium is required, as well as environments where electronic systems cannot be shut down in an emergency.

Fike SigniFire IP Video Flame & Smoke Detection Camera




Description

The SigniFire IP represents a family of turnkey flame, smoke, and intrusion detection camera solutions that visually detect the presence of fire or smoke at its source, independent of airflow in the area. This technology offers a critical advantage for early warning fire detection, identifying and reacting to fire, and protecting lives and property.

- Detects flame in seconds
- Supplies vital, situational, live video to remote locations
- Provides video surveillance capabilities
- Triggers fire alarm systems
- Provides prerecorded video forensic evidence for future fire investigations

Best For: Enterprises looking to identify smoke in large spaces and have video evidence for insurance purposes.

Marioff HI-FOG Water Mist Fire Protection System




Description

The HI-FOG system from Marioff discharges a fine water mist at high velocity to suppress and extinguish fire. This setup can be used in place of deluge, gas, foam, dry chemical, traditional sprinkler, and other types of fixed fire protection. HI-FOG uses up to 90% less water than a conventional sprinkler system, which means cleanup is fast and business downtime is kept to a minimum. Fire, water, heat, and smoke damage are minimized, as well, and it stops the fire from spreading or reigniting. A typical HI-FOG system in a data center consists of a high-pressure pump unit, a small water supply tank, section valves, small-diameter stainless steel tubing, and HI-FOG sprayheads.

- Uses a three-prong approach: cooling, radiant heat blocking, and local oxygen inerting
- Offers total facility fire protection to simplify maintenance and deliver cost savings
- Minimizes business disruption because system discharge is localized at only the point of the fire
- Use of various system configuration points minimizes risk of leakage and false discharges
- Spaces will not need to be evacuated or closed off for HI-FOG to be activated
- Can be easily expanded to new phases of a data center facility
- Supports environmentally sustainable design

Best For: Organizations that want a system that covers all of their fire protection needs.

Periphman Aero-K




Description

Periphman's Aero-K fire suppression system uses potassium-based aerosol generators that can extinguish a fire in seconds. The aerosol won't harm electronics or electronic media such as tapes and disks or the health of facility personnel. Aero-K aerosol generators are compact and easy to install and feature multiple smoke detectors that limit the chance of accidental discharge.

- Won't corrode steel, plastic, nickel, brass, zinc, copper, aluminum, or other commonly used composites
- Leaves little residue after venting
- Ecologically friendly with no agents that can harm the ozone layer
- Control panel with battery backup in case of power outage

Best For: Information technology and telecommunications industries.

Polargy PolarPlex Drop Away Panels



Description

One of the big challenges with air management products is maintaining data center fire safety without sacrificing visibility in the aisles. Polargy's PolarPlex Drop Away Panel addresses those challenges. The panels are the only ones on the market with a UL listing for use under sprinkler heads. With an activation temperature of 135 degrees Fahrenheit, the panels fall to the floor in the event of a fire, so the ceiling-based fire suppression system can operate free of obstructions.

- Custom made to order
- Lightweight and easy to install (a 2- x 4-foot panel weighs only 7 pounds)
- Panel insert material is a special transparent plastic, allowing light to pass through
- Each panel is 0.013 inches thick and slots into an extruded 1-inch anodized aluminum frame

Best For: Data centers that need to seal the top of a hot or cold aisle while still allowing a fire suppression system to work as needed.

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Nathan Lake

Fireaway Stat-X Thermal Units



Stat-X Thermal Units from Fireaway emit an ultra-fine potassium-based aerosol that won't harm sensitive electronic equipment or magnetic media. Thermally operated units integrate a thermal detector that automatically activates the unit in the event of a fire. Thermal units can also be manually activated. Thermally operated units have a low installation cost, are virtually maintenance-free, and have a shelf life of more than 10 years.

- Easy installation that doesn't require pressure vessels, piping, or installation manpower
- Occupies less space than other extinguishing agents
- Environmentally friendly with zero ozone depletion potential
- Favorably reviewed by EPA for SNAP listing

Best For: Electronic cabinets, data processing equipment, and printing equipment.

Firelock Modular Server Vaulting



With Firelock's Modular Server Vaulting, you get a custom-designed vault that's built to suit your needs. A Firelock modular vault is an enclosure with integrated environmental monitors and fire suppression components, which makes it easier to protect the contents from a fire on the outside. The vaults protect your valuable components from fire while you monitor the servers and equipment from a remote location.

- Class 125 four-hour rated vault door
- Smoke- and heat-activated hydraulic door closer
- Environmental/alarm monitoring
- CCTV surveillance
- Novec 1230 fire suppression
- Watershield roof deck
- Fire-rated electrical cable trays
- Master power switch

Best For: Enterprises that want to ensure mission-critical operations by protecting key equipment in an isolated, secure, and fire-protected area.

FireXonline OnGard



The OnGard fire protection system from FireXonline consists primarily of a tank filled with fire-suppressing agent. A tube connected to the tank delivers the suppression agent directly to a potential fire site, such as the inside of a rack enclosure. When a fire is detected, the tube will rupture and release the agent into the area. Extinguishing a fire at the source may eliminate the need to discharge a computer room's larger suppression system.

- Penetrates hard-to-reach areas
- Detects and extinguishes fires in less than 10 seconds
- Reduces downtime caused by data center fire

Best For: Data centers, computer rooms, and communications facilities.

TechXact Fire Prevention System



TechXact's Fire Prevention System actively prevents a fire from starting by controlling the oxygen content of the room. The reduction is precise enough that there's not enough oxygen for a fire to start, but enough that people can enter the room and stay without any side effects. The oxygen reduction is aided by nitrogen, which can be generated in a cost-effective manner onsite or using an air processing system.

- Provides certainty of avoiding outbreak and spread of fire
- Permanent and preventive fire protection to secure business processes and valuable goods
- Avoidance of further damage from smoke, spread of fire, or extinguishing agents
- Problem-free adaptability to changes in fire risk
- Cost savings at the construction stage of fire detection measures
- Personnel retain access to protected areas

Best For: Environments where availability is the top concern or situations where a fire risk must absolutely be eliminated.

Victaulic Vortex



The Victaulic Vortex fire suppression system is the world's first-ever hybrid (water and inert gas) fire extinguishing system that extinguishes fires without the use of any toxic chemicals by deploying a high-velocity, low-pressure mixture of nitrogen and water. The system delivers as little as one gallon of water per emitter per minute, and each emitter can protect up to 2,500 cubic feet. The system is compatible with facility fire protection systems to provide greater design flexibility, and it is recharged rapidly allowing for a return to working conditions almost immediately after a fire.

- Nearly zero wetting of protected areas
- No ozone depleting or greenhouse gas emissions
- Quick system recharge to support minimal facility downtime
- Protects people and assets

Best For: Protection of enclosed cabinets and isolated equipment within protected spaces.

Xtralis VESDA ASDs



VESDA early warning ASD (aspirating smoke detection) solutions from Xtralis provide continuous air sampling to give you the earliest possible warning of an impending fire. VESDA ASDs buy time to investigate an alarm and initiate an appropriate response to prevent injury, property damage, or business disruption. VESDA detectors have multilevel warnings and a wide range of sensitivity that does not degrade or change over time, so even minute levels of smoke can be detected before a fire has time to escalate. VESDA ASDs come in a variety of models to provide early warning smoke detection for a broad range of applications and environments of different sizes—from data centers to large, open spaces and even harsh environments.

- VESDA sampling points can be placed at the return air grill or inside equipment cabinets to detect smoke as it is carried by the air
- Detectors can also be mounted in accessible locations for easy maintenance
- Dual-stage filtration ensures that detectors function reliably in extreme conditions and dirty environments
- Allows for early intervention to prevent suppression releases

Best For: Areas in which smoke is difficult to detect, such as in a server room.

Visual Networking Report Predicts Significant Data Traffic Increase

According to Cisco's Visual Networking Index Global Mobile Data Traffic Forecast Update for 2010 to 2015, enterprises should expect an enormous increase in worldwide data traffic in the next four years. The study indicates that by 2015, 5.6 billion devices will be connected to mobile networks and almost the entire predicted world population of 7.2 billion people will have a mobile device. Specifically, smartphones, laptops, tablets, and additional portable devices will dominate mobile traffic by 2015.



There are four primary mobile data traffic drivers that Thomas Barnett Jr., senior manager of service provider marketing for Cisco, says are behind the high consumption of network resources: more mobile connections, enhanced computing, faster mobile speeds, and rich media or apps.

"Mobile devices are growing faster than the mobile subscribers that use them," Barnett says. "Mobility is becoming a requirement, not a preference. Over the 2010 to 2015 forecast period, we anticipate that global mobile data traffic will outgrow global fixed data traffic 3.3 times."

James McCloskey, senior research analyst at Info-Tech Research Group, views these trends as the very beginnings of a tablet-based computing explosion developing as an extension of the smartphone computing model.

"As the evolving capabilities of tablets converge with ever-increasing expectations among users for higher-definition multimedia content, greater volumes of such rich content available for streaming or download, and continued growth in IP-based video call/videoconference technologies, it isn't hard to see that pressures on both wired and wireless networks will continue to mount," McCloskey says.

Next-Generation Projections

No doubt enterprises will learn to accommodate the device adaptability of end users, whether quickly or gradually, but deploying next-generation mobile networks requires greater service portability and interoperability, Barnett says. More openness "will broaden the range of applications and services that can be shared . . . enabling great employee collaboration and productivity," he explains.

Barnett advises enterprises to plan to securely authenticate and connect a broad range of devices and nodes on a network that supports high-performance computing and multimedia services. "As wireless technologies aim to provide experiences formerly available only through wired networks, the next few years will be critical for network operators and enterprises to . . . create an adaptable, intelligent platform upon which they can support the multitude of mobile-enabled devices and applications of the future," Barnett says.

by Joanna Clay

HOW TO Reorganize Your Server Cabinets

Rearrange To Conserve Space & Energy

by Holly Dolezalek

. . .

BADLY ORGANIZED SERVER cabinets consume too much space and use energy inefficiently. Reorganizing those cabinets can yield efficiencies and cost savings that are worth the required downtime. But if you do it wrong, you won't be much better off than you were before. Here are some guidelines for whipping your server cabinets into shape.

Key Points

- Start your plans with power and cooling, not space. Your reorganization will have to work within power and cooling requirements, and save space only once those are satisfied.
- Take airflow patterns into account so that your hot aisle/cold aisle configurations aren't undermined by your new organization.
- Don't forget to account for other components, like heat sensors, PDUs, cables, bus distribution systems, and other necessary accessories.

The Lay Of The Land

As with so many IT projects, start off by knowing what you have. What pieces of equipment do you have in your cabinet? What are their vital statistics, such as their airflow patterns (front to back or vice versa), power requirements, weight, and other characteristics? How many power receptacles will you need if new equipment is part of your reorganization? What other components—heat sensors, PDUs, and so on—and cables are in there? The more you know about your cabinets, the more likely you are to plan a reorganization that runs smoothly.

"A badly organized cabinet will often also be badly documented," says Daniel Calderon, facility director for network infrastructure provider Host.net (www.host.net). "Auditing the existing cabinet and determining what is actually needed is a great place to begin."

The audit is also a good way to confirm that everything in the cabinet is still being used. "Prior to any reorganization, identify, remove, and/or reallocate those unused or underutilized servers in your data center," says Steve Suesens, category manager for Staples Technology Solutions (www.staplesadvantage.com). Map out where each cable goes and what's running on each piece of equipment. If it doesn't have a purpose anymore, you've just saved even more space, and probably money.

Plan Of Attack

After your audit, it might be tempting to start right in on cabinet reorganization by rearranging the equipment into smaller spaces. While that makes for a neater-looking cabinet, you're better off starting with power instead of space. "Roughly

80% of data center facility investment is driven by the amount of power and cooling," says W. Pitt Turner, executive director of the Uptime Institute (www.uptimeinstitute.org). "Space is easy to see and track, but it is quite misleading."

So plan before you move. Start by thinking about the future of your data center. Are there plans for significant additions to the server footprint? Is a significant change coming in the direction of infrastructure? Are you considering starting or continuing to virtualize servers? Is an equipment refresh not too far off? If so, your reorganization might as well take those changes into account if it's possible. If you're going to be refreshing equipment, you may need to plan for different receptacles, such as NEMA 5-15 plugs to IEC C-13 or 14s.

And the changes may be more significant than that, depending on what's on the horizon. "For example, if you expect to move to a blade server strategy in your data center, then more power may need to be delivered to each rack," Suesens says. "Also, more heat will be generated, more cabling will be present, and monitoring equipment may also be necessary."

Map Your Heat & Weight

Next, map out how much power is available to the cabinet (or cabinets) you're targeting and make sure your equipment doesn't exceed those limits. After that, you'll have to account for the

there is no gear in the cabinet, you'll need to cover them. "Use blanking panels for open U space on the intake side of the cabinet to eliminate the mixing of hot and cold air," Chesal says.

After that, it's time to think about weight. What are your heaviest pieces of equipment, and where are you planning to put them? The heaviest gear should go at the bottom of the rack, particularly if your data center is located in an area known for seismic activity.

Get It Right

As you plan, involve other stakeholders. Facilities and procurement can join you in weighing in on reorganization and how new equipment will have to fit in. They can also keep your assumptions in line with constraints you may not have thought of, particularly on money-saving possibilities. "Switching to a slightly less expensive component could eliminate the ability to utilize beneficial features in several of the other components," Staples Technology Solutions' Suesens says. "For example, an 'in-row' or 'in-cabinet' cooling solution would only function properly if it were paired with the correct cabinet—one designed to facilitate the proper chilled air movement and containment."

It's a given that you should schedule your reorganization plan for weekends or holidays so that downtime doesn't affect your end users. But once it's time to execute the transition, there are a few tricks to make sure the installation goes smoothly. If you're moving gear from one cabinet to another or adding new gear to an existing cabinet, do a dry run first—try fitting the cables and PDU into the cabinet first to make sure the cabinet is deep enough to accommodate everything. If you've decided to order new cabinets as part of the transition, your equipment supplier can do some of the work. "Ordering your cabinets preconfigured with power distribution units, cable management solutions, and ancillary hardware preracked will save time," Suesens says.


“A badly organized cabinet will often also be badly documented.”

- Host.net's Daniel Calderon

result of that power: heat. What are the current airflow patterns of the cabinet? Is hot air from one piece of gear flowing right to the inlet of another? How are you managing heat, and is the new configuration you're considering going to undermine or enhance that plan? You don't want to save space and then find out that you have to jack up the cooling. "For example, if the rack count is increased by 20% by using narrower cold aisles, the ability to cool the IT equipment inside the rack may be reduced by 50%," Turner says. "The impression of goodness (more racks) is overwhelmed by the inability to cool the IT equipment in a proper and stable manner."

A good rule of thumb is to keep density low, because the lowest part of the rack is also the coolest. But with every piece of equipment, make sure you rack it the correct way, says Lenny Chesal, vice president of strategic sales for Host.net. "I can't tell you how many times I have seen servers racked from the hot side," says Chesal.

If you're using or changing your hot and cold aisles, keep in mind that if your reorganization plan results in places where

The place to start all this—the audit—will yield a great place to end. When you're done with your reorganization, you'll be in a great position to specify to all of your technicians how to install new equipment in the cabinet. 

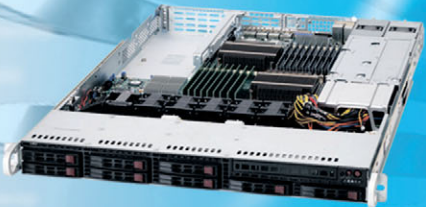
TOP TIPS

- Use cabinet power distribution units that will help you monitor and manage your equipment and environment.
- Avoid using the cabinet for storage. Use vertical power strips on the outside of the cabinet.
- Use the correct length of both power and data cables to reduce airflow constriction.
- Know where your hot spots are and address them with perforated floor tiles, blanking panels, and temperature sensors.
- Consider implementing an asset management program to track your IT equipment. New wireless (RFID) solutions make this possible without added cabling.

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Four Tools That Cause IT Headaches (& What To Do About Them)

Tablet PCs, social networking, and hosted applications can cause problems for data center mangers in charge of securing their enterprises and keeping networks up and running. We talked with experts to come up with some tips to help.

Ready Or Not, Tablets Are Coming | 26

■ Today's employees are beginning to demand the ability to use their own personal devices to do their jobs. This trend toward the "consumerization" of IT has been particularly pronounced in regards to Apple's iPad tablet.

Social Networking's Balancing Act | 27

■ Social media has become a legitimate business tool. But some data centers continue to have difficulties managing the concerns presented by these new communication pathways.

Headaches From Hosted Solutions | 28

■ With more and more organizations moving toward cloud apps, the potential for IT headaches abounds. However, knowing some of the potential problems ahead of time could save your organization plenty of grief and set you up to realize the advantages these cloud-based apps can provide.

USB & Portable Storage Headaches | 28

■ Removable storage devices pose tremendous threats to security and data management for businesses of all sizes.

Ready Or Not, Tablets Are Coming

Minimize The IT Headaches Caused By The iPad & Other Tablets

by Cynthia Harvey

UNTIL RECENTLY, MOST EMPLOYEES got the hardware and software they used for work from work. However, today's employees are beginning to demand the ability to use their own personal devices to do their jobs. This trend toward the "consumerization" of IT has been particularly pronounced in regards to Apple's iPad tablet.

In a Sybase survey, the No. 1 reason people cited for wanting an iPad was for working on the go. C-level executives, in particular, have embraced tablet PCs,

aware of their advantages and limitations. "You have to at least get experience with the product," Schadler says. "So get a bunch of them in. Get some experience in your security group, your device management group."

company money, but it makes it more difficult to establish guidelines about how and where the devices can be used. Experts say managers should address these issues as soon as possible, because employees will be using tablets for work in

devices that are entering your enterprise, and you need to do it in a way that you don't have to come up with different management configuration parameters every time a new device enters," Ortega says.

Numerous companies offer mobile management solutions that can address these concerns. In general, a mobility management solution allows managers to set permissions for who can access which services. They track devices in use and any network charges that the company is paying for. Some also allow enterprises to set up their own in-house app stores, and most enforce basic security precautions, such as remote wipe in case the device is lost or stolen.

Key Points

- Employees will be using their iPads for work regardless of whether they get the IT department's permission.
- IT managers can reduce some iPad headaches by familiarizing themselves with the devices, quickly updating corporate mobility policies, finding a good security solution, and prioritizing platforms and apps that are most important for their business.
- IT departments that lead the way instead of resisting the introduction of iPads generally enjoy greater success—and a better image within the company.

often demanding that their IT departments support them. However, just because executives and employees want to use the iPad for work doesn't mean that the IT department shares their enthusiasm.

Supporting the iPad and other tablets brings a lot of headaches: IT has to redevelop applications so they can run on mobile platforms with touchscreens. They have to deal with security issues and set policies on how the devices can be used for work and who will pay for what. And they have to prepare for help desk calls and sometimes unrealistic employee expectations.

"On the other hand, they know they're cool," says Ted Schadler, vice president and principal analyst at Forrester Research. Most IT departments want to enable their employees to use the latest, greatest technology and experience the benefits tablets bring. Fortunately, experts say IT can experience those benefits while minimizing their headaches with a few simple steps.

Get Some Experience

Because they're so new, many IT staffers and managers have never really used the iPad—or any other tablet PC—and aren't



Increased familiarity with tablets will help IT set policies, prepare their help desk staff, address security issues, and manage the devices.

Bring Policies Up To Speed

Most experts agree that IT departments don't really have a choice when it comes to supporting the iPad and other tablets. Employees will likely use them at least to surf the Internet and check work email whether IT says they can or not. "Mobility is a given," notes Dan Ortega, senior director of product marketing for Sybase (www.sybase.com). "It's happening, and it's happening right now. You don't have a choice."

However, before enterprises can set their employees loose with mobile devices, they need to revisit corporate policies, particularly who pays for what with dual-use devices. Schadler points out, "a lot of the policies are not designed for that."

In many cases, employees are willing to pay for their own iPads. That saves the

the very near future if they aren't doing so already.

Find A Good Security Solution

IT managers are often particularly concerned about security issues surrounding iPads. Loss or theft of the devices could put company—or customer—data at risk. "The first thing you need to do is secure the

Set Platform & Application Priorities

Because so many different tablet PCs and operating systems are expected to flood the market in the coming year, IT departments will have to focus their efforts on a few platforms or risk being overwhelmed. Schadler believes that, for the coming year, most companies will support the biggest three players—iPad, Android, and RIM's PlayBook.

In order to support these platforms, developers will need to rework many enterprise applications so that they'll work on mobile operating systems. But which apps should they mobilize first? "Of course, email and calendar are easy, but you need to find out which [other] applications are most important for employees," Schadler notes. "And believe it or not, most IT shops don't know."

To find out, IT managers should conduct surveys of employees and look at any usage data they may have. "Don't operate on gut feel," warns Schadler. "Go out and get some data before you make that prioritization decision."

Effective planning and prioritizing can help IT minimize costs while giving workers the tools they need to get their jobs done on the go.

Top Tip: Embrace The Inevitable

Given that employees will be using the iPad and other tablets for work, IT departments have three familiar choices: lead, follow, or get out of the way. According to Ted Schadler, Forrester vice president and principal analyst, "The best examples I've seen are where IT has, in fact, embraced tablets for some employees as a way to say, 'Hey, we're there. We're on top of the cool stuff.'"

Dan Ortega, senior director of product marketing for Sybase (www.sybase.com), points out that by taking a leadership role on the iPad issues, IT may be able to improve its image inside the enterprise. "One of the problems that IT always has is that they are guys that say 'no,'" he says. "Don't be the guy that says 'no.' Be the guy that says 'Let's go.'"

Proactive action will also make supporting tablets less of a headache in the long run, says Ortega. "The faster you move, the quicker you can get ahead of the curve, the more control, visibility, and transparency you have," he says.

Social Networking’s Balancing Act

Appreciate The Value While Avoiding The Pitfalls

by Julie Knudson

SOCIAL MEDIA HAS BECOME a legitimate business tool. It’s used by companies of every size and in almost every industry to engage customers, collaborate with partners, and distribute new information. But some data centers continue to have difficulties managing the concerns presented by these new communication pathways.

Key Points

- Remember that social networking applications come with storage demands, especially in the face of compliance requirements.
- Consider network resource needs when evaluating potential social networking applications.
- Select platforms that meet each business unit’s functional requirements as well as IT’s infrastructure needs.

“A lot of the issues that folks are grappling with have to do with information security, leak prevention, [and] understanding why people are using these tools and what they’re using them for,” says Eric Young, senior director of field services at FaceTime Communications (www.facetime.com). He notes that IT groups should remember social networking is just another way for a company to meet its goals, and managing it isn’t really all that different from other communication platforms already in use. “Organizations need to get their hands around it to be able to provide the same types of controls they have around any type of business-sanctioned tool.”

Plan For Storage & Scalability

The amount of data generated by social networking platforms is deceptively large. “What’s going on today is that there are a lot more packets of data being passed around,” says Wendy Steinle, director of product marketing for Novell Vibe at Novell (www.novell.com). “Think about these short messages that people are sharing. There’s this enormous volume but the size of each is a lot smaller.”

Steve Chan, vice president of business development at ZL Technologies (www.zlti.com), agrees that storage is often a concern. “It’s little tidbits here and there, but they start to chain together and to some degree the volume is a big issue,” he says, adding that organizations can proactively address storage issues by carefully evaluating the scalability of potential systems. “When you get to a large volume, to capture and maintain that data and be able to search it quickly . . . becomes very difficult, and that’s the challenge that a lot of vendors are actually having to face these days.”

Consider Your Bandwidth

Bandwidth requirements are often overlooked during the planning and implementation phase, only to cause problems later.

“The other issue from an infrastructure perspective is that you really have to look at the pipes that are supporting your whole network,” Steinle says. “And while a lot of IT organizations are perhaps getting more of their services through the cloud, other transformations have to occur in the data center to support the flow of information that’s now happening online. You may end up having fewer servers in your data center, but you better have stronger pipes to connect to the flow between your users and the cloud.”

Resource-hungry applications are another issue. “Generally what folks do is limit the bandwidth-intensive components of these applications,” Young says. “They’ll say it’s OK to use Facebook but we’re going to disallow videos, which are big bandwidth hogs.”

Enterprises may choose to ramp up existing resources to support the increased traffic, clamp down on applications that utilize a lot of bandwidth, or some combination of the two.

Manage Compliance Requirements

You don’t need to recreate the wheel to support social media platforms in a way that meets your compliance and regulatory needs. “For regulated users, [social media] needs to be considered communication and therefore needs to be archived and treated the same way as email,” Young says. “That’s really what a lot of our customers are doing now—they’re implementing solutions that allow them to capture the conversations, retain them, and in many cases push them into their existing email archiving system so that they’re able to see all the content in one place.”

The email analogy holds true across many industries and functional areas. “When we’re talking about compliance, we’re usually talking about things like retention of data,

trackability, [and] maybe sharing of proprietary information,” Steinle explains. “Some of the handling does not change from how it’s handled today with email.” Once you’ve



determined how you want a social media platform to manage storage, searchability, and data security, you can then evaluate available solutions. “It gets back to looking for a social networking tool that is enterprise-ready and that allows you those types of controls and insight,” she says.

Understand The Business Need

Data centers that successfully select, implement, and support social networking platforms are usually those that recognize the value of social media as a business tool. To be sure you have the information necessary to find and deploy the best solution, you first need to gain a good understanding of how social media can benefit your company and what your business unit’s social networking goals are.

“There’s going to be no stopping the usage of social media,” Steinle says, “so the groups need to make sure they understand what they’re trying to achieve and then look at the options out there for enterprise-sanctioned social networking tools. Make sure that you adopt one on behalf of the enterprise that meets the needs of the business and of IT.”

Top Tip: Form A Partnership Between Legal & IT

A common problem is that an enterprise’s legal department doesn’t understand what’s possible or available through IT, and IT doesn’t know which rules apply to it and what the regulations actually mean. “One of the things that we see as the biggest challenge within companies is the fact that IT and the folks that deal with the law and regulations are often at odds with each other,” says Steve Chan, vice president of business development at ZL Technologies (www.zlti.com). “There really needs to be strong communication between the policy makers within the company and the IT department, because otherwise IT won’t know which tools are going to be important and what things to look out for, and they’re not going to be able to apply effective policies.”

Establishing an open, workable connection between the two groups is critical in ensuring that the best tools are implemented, and that support happens in a way that serves the organization’s needs. “We work on a lot of projects where there are dedicated liaisons on either side—there’s a Legal liaison in IT and there’s an IT liaison in Legal,” Chan says. “Those kinds of hybrid individuals make it much easier to move these projects through and to address the issues more effectively.”

DHS Plans Big Investment In Cybersecurity Research

The Department of Homeland Security announced that it will spend \$40 million on researching malware, botnets, insider threats, and other cybersecurity concerns throughout the year in an effort to bolster national security. The DHS plans to focus on 14 areas of cybersecurity research, a third of which will contribute to the CNCI (Comprehensive National Cyber Initiative). In studying such areas as enterprise-level security metrics, software assurance, modeling of Internet attacks, and network mapping, among others, the DHS aims to develop new technologies that will protect both the Internet and the country’s most vital infrastructures, such as the power grid and communications systems.



Google Claims Microsoft Stole Search Engine Results

Google and Microsoft have been sparring over reciprocated allegations that both companies have stolen ideas from the other, but now Google says that Microsoft has been using the Bing toolbar in Internet Explorer 8 to monitor the way Internet users search on Google. Microsoft denies all charges, claiming that it simply adjusted its results after comparing search requests and click activity. According to Microsoft Corporate Vice President of Bing Harry Shum, the new “Bing Sting” is a “spy-novelsque stunt” and “a creative tactic by a competitor.”

SaaS Has Its Limits

Forrester reports that despite SaaS (software as a service) making inroads into new applications, the cloud is not ideal for all software sectors. According to the report, Forrester considers SaaS a disruptive technology capable of dominating one-fourth of global software spending; however, the remaining majority of software will be unaffected. The most SaaS-resistant software applications include operating systems and databases, software for internal IT management and data management, legacy process applications, and vertical applications. These applications are responsible for 40% of all software spending. Forrester’s researchers repeat the oft-bemoaned barriers for SaaS adoption in these sectors: security concerns, existing infrastructure investments, and the integral nature of these processes. SaaS currently accounts for up to 50% of revenues for about 3% of the total software market in areas such as e-purchasing, expense reporting tools, and blogging and wiki platforms. SaaS is also finding new growth in supply change management, customer relationship management, and human resources.

Survey Ranks Call Center Tech Support

A consumer feedback study from Vocal Laboratories found that Apple’s tech support outscored both Dell and HP in overall satisfaction. About 66% of Apple tech support customers said they were very satisfied with the call, while 51% of HP and 49% of Dell customers said the same. The study was based off of interviews with customers from July 2009 to December 2010. Vocal Laboratories notes that Apple’s lead dipped in the second half of last year, compared to the first half of 2010. About 76% of Apple users also said they were satisfied with the representative who helped them on the call.

Headaches From Hosted Solutions

Free & Cloud-Based Platforms Are Not Necessarily Free Of Trouble

by Robyn Weisman

MORE AND MORE ORGANIZATIONS are moving toward cloud apps, many of which are available in free versions. In 2009, the City of Los Angeles chose Google Apps over a Microsoft Office and Exchange solution, in part because the city’s Information Technology Agency thought it could save as much as \$20 million over the life of the five-year contract. However, the project hit some snags when the LAPD raised concerns about the cloud solutions’ compliance with the department’s strict data security requirements.

The City of Los Angeles obviously has more employees and a more complex setup than the typical SME. Nevertheless, switching over to cloud-based apps that cost less than their on-premises counterparts is not a guaranteed win-win for enterprises—the potential for IT headaches abounds. However, knowing some of the potential problems ahead of time could save your organization plenty of grief and set you up to realize the advantages these cloud-based apps can provide budget-strapped businesses.

The Multiple-Password Problem

Perhaps the most obvious nuisance in trying to integrate cloud apps into an existing data center’s infrastructure is the potential for password sprawl. Because most of these apps are accessed through a browser, your users may find themselves required to create and remember multiple passwords, something that can lead to security vulnerabilities caused by weak passwords as well as minimal usage of the apps because they are more trouble than they are worth.

Darren Platt, CTO at cloud security provider Symplified (www.symplified.com), says the proliferation of passwords needed by various cloud apps also could lead to silos of identity, where users are responsible for maintaining these different accounts, which drains productivity gains because of the constant logging on to every app you want them to use.

“If users have usernames and passwords in all these different applications and have to remember all of them, that can lead to a security vulnerability where [someone uses] the same password for a SaaS application that he uses for the local network,” Platt explains.

“So now your partner SaaS applications have passwords for the local network, and that’s a common thing that’s difficult to prevent” without a workable solution.

Platt recommends setting up a single sign-on solution that allows users to access all of an organization’s apps through a secure single password. “If you have one

session across all these applications and don’t have to keep signing in, there’s less friction across all of these applications, and it’s easier to get [users] to adopt these applications,” he says.

Provisioning & Deprovisioning Risks

Similar to wrangling multiple passwords, cloud apps can create problems when dealing with provisioning and deprovisioning user accounts. “Today, when most enterprises get a new employee, they add that user to Active Directory, and then the user gets access to applications by virtue of the fact that they’re in Active Directory and thus authenticated to the network,” Platt says. “But applications being hosted on third-party networks aren’t talking to Active Directory, and so when you add a user, you have to access another admin interface provided by the SaaS application, which leads to redundant user account management.”

USB & Portable Storage Headaches

Get To The Bottom Of Problems & Find Relief

by Chris A. MacKinnon

IT SEEMS THAT EMPLOYEES can hardly wait to get their hands on USB and other portable storage devices to back up their data, easily transport large amounts of data, and get away from relying on the network for data storage. While it may be a walk in the park for employees, it’s typically not the case for data center and IT staff that must secure, track, and monitor these devices.

Removable storage devices pose tremendous threats to security and data management for businesses of all sizes, according to Steven T. Bishop, executive director of technology and CTO at VeriStor Systems (www.veristor.com). He says that even though administrators go through extensive planning and infrastructure design to secure systems and data on their protected networks, these devices can create a

wide-open door for sensitive information to leave the control of the organization and for worms, viruses, and other malicious code to get in.

“This is not just about data leakage and all the potential implications of that, not the least of which [is] possible breach of regulatory compliance for certain industries,” Bishop says. “It’s also about the overall health and integrity of the company’s IT infrastructure as a whole.”

Potential Problems

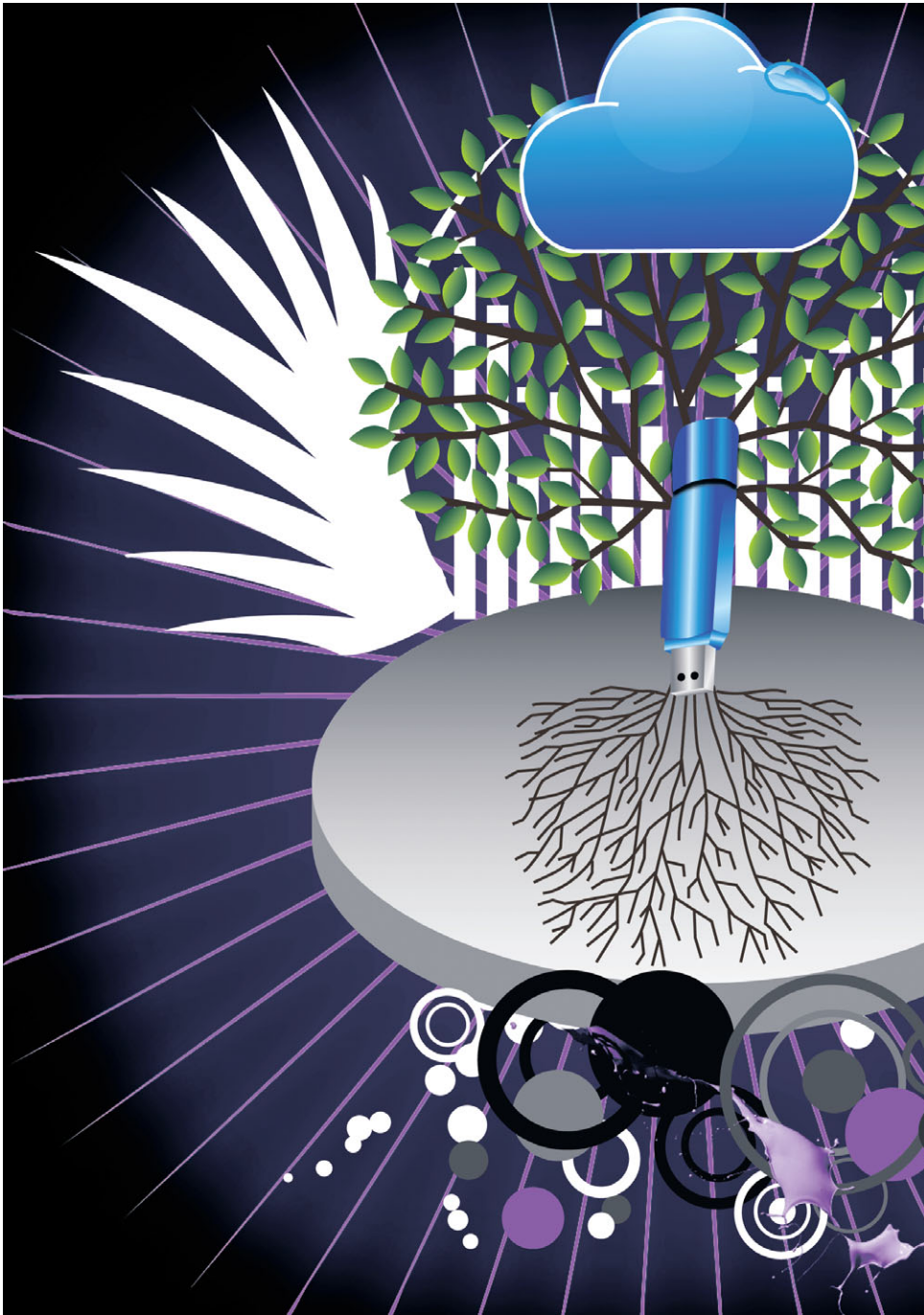
According to Brian Tokuyoshi, senior product marketing manager at Symantec (www.symantec.com), USB and other storage devices can create a number of security, network, and storage problems. He says unauthorized storage in particular is a big issue. “In some employee roles, perhaps the proper policy is to allow a user to look at data, but not remove it,” Tokuyoshi says.

“For instance, a user who is doing inventory analysis may need to look up part numbers in a computer database, but their job does not require them to make a copy of the database for their own use. It might make a lot of sense to prevent such users from using removable storage entirely.”

Tokuyoshi says malware insertion is another potential headache. “Because USB drives are often set up to auto-mount and auto-run, they can be an attractive way for an attacker to insert malware into the environment,” he says. “We’ve seen instances where the attack may simply be the matter of leaving malware infected devices in public locations, where an unsuspecting good Samaritan picks it up and inserts it into a corporate computer and inadvertently installs a keyboard logger or a network sniffer.”

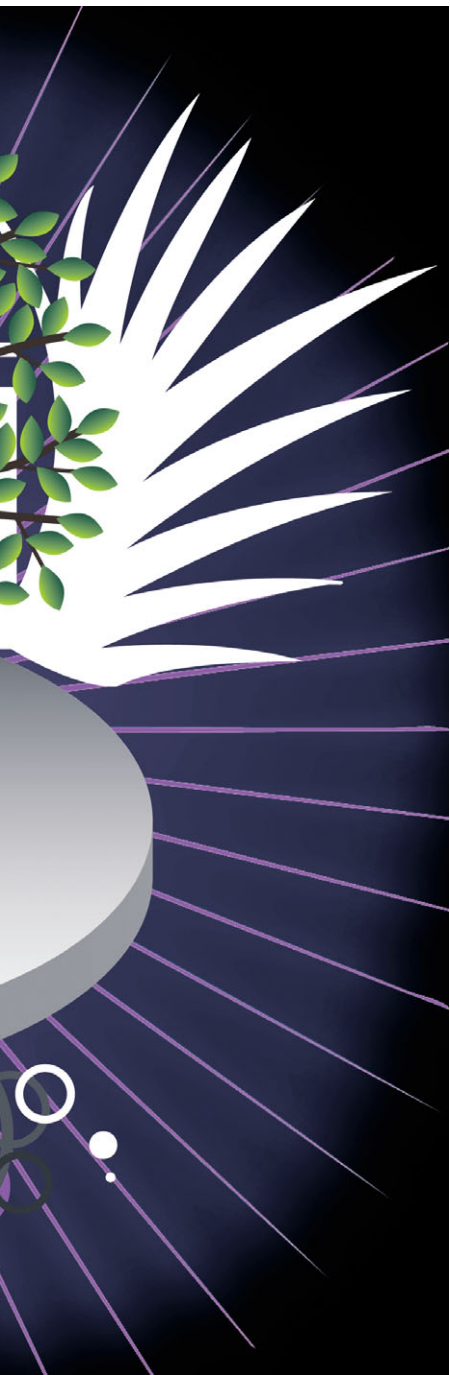
Another approach is a more targeted attack, where the malware-infected device is mailed directly to the target, with the return address of some official agency or impersonating a superior in the corporation. The recipient receives the device and plugs it in to see what it is, and ends up with an infected system. Tokuyoshi says device control systems can prevent an unapproved device from being mounted.

In addition to data leakage and malware, regulation compliance is also a concern, Bishop says. “For example, while administrators are going through great pains to make sure certain network-based data sets are protected, copies of that data could easily be floating around on removable storage devices in people’s desks and in their homes and vehicles,” he says. “This problem isn’t just an issue



Although provisioning can be a bureaucratic headache, deprovisioning scenarios can cause IT nightmares. For example, a research engineer needs access to a cloud-based sales portal to add information to a customer account and so gets privileges into the company’s sales pipeline. Then, when that engineer leaves the company or is fired, his privileges may not be revoked right away, meaning he may have access to sales information long after his employment with the company has ended, Platt says.

To avoid these situations, Platt recommends implementing federated identity solution using SAML (Security Assertion Markup Language) to close these gaps. SAML technology works by allowing an organization to authenticate its own users. “If I’m using Google Docs to work on some spreadsheets, federated technology allows me to authenticate to my own company, rather than to Google, to access



with removable devices, but also applies to the internal drive in notebook computers, as well.”

Key Points

- Data leakage is a major concern, so establish policies governing employee access to data and the ways in which data can leave the organization.
- Data requests for litigation support are becoming increasingly common, so it's important to ensure data retention in order to avoid penalties or further litigation.
- Defining a universal policy is difficult, so look for solutions with strong central management capabilities and granular control.

Key Points

- A single sign-on solution across all your organization’s apps, both cloud and on-premises, makes for a more secure, better monitored, and usable network.
- Provisioning and deprovisioning scenarios can cause major security headaches and require a solution where your enterprise authorizes a user, rather than the third-party app.
- Acknowledge that tensions may exist between the needs of the organization as a whole and individual departments and craft governance policies that everyone can follow.

those docs,” Platt explains. “When I go to Google to access my spreadsheet, Google will send me back to my own company to get authenticated, and then my company tells Google that I am authenticated.”

Tensions Between Departments

In addition to security problems, cloud apps can create tensions if they are brought in by individuals or departments within an enterprise and they fail to integrate well with the current IT architecture, regardless

Top Tip: Hire A Consultant

If you are planning to integrate cloud solutions such as Google Apps into your IT infrastructure, hire a consultant to guide you through the process, says Jonathan Eunice, founder and principal IT advisor at research firm Illuminata.

“Just as there are experts in managing Exchange, there is a whole group of experts who do consulting to move from Exchange to Google Apps and other [cloud apps],” Eunice says. “It costs relatively little to get someone who has made this type of migration many times before and knows exactly what to do. It will save you money and effort and [cut down on] worry.”

And it doesn’t just apply to regulated industries and data sets, Bishop says. “Data requests for litigation support are becoming increasingly common, and court procedural rules have changed to make it harder on companies that don’t have their data under control,” he explains. “When a judge requests a data set, you’d better either be able to produce it or be able to prove that you have policies in place to make sure that it’s not ‘out there’ somewhere.”

Best Approach

In Tokuyoshi’s opinion, the foundation of handling USB and other storage devices starts with device control software that provides the intelligence for what can or cannot be allowed on the system. “There are a lot of solutions on the market that offer some type of device control functionality, but really the differences start to become clear when you look at the policy engines,” he says. “As an organization grows larger, it can be very difficult to define a policy that works universally for everyone, so being able to pinpoint who a particular user is [and] what type of permissions can be set and having the fine-grain control to provide precise security provisions is vital.”

A second point to look for, Tokuyoshi says, is to think about how to manage all of this. He says it can quickly become overwhelming doing device control policy on a user-by-user basis. The solution with the strongest central management tools can pay big dividends in the long term.

Although there’s no single best way to specifically handle removable storage devices, Bishop says there are lots of ‘point’ solutions to many aspects of this

of what the legacy is, says Jonathan Eunice, founder and principal IT advisor at research firm Illuminata.

Conversely, tensions can occur when needs within a department are not properly taken into consideration when making an enterprise-wide move to a SaaS solution. “You need to determine the regulatory requirements for how long you archive data, how many copies of the data you need, and the types of security barriers and controls needed,” Eunice says. “The question when you have a mandate or a legal or fiduciary responsibility is to figure out if you are still compliant after bringing in Google Docs or whatever other [cloud app] you’ve brought in.”

Regardless of the headaches involved in moving over to free and cloud-based apps, you need to establish governance that will both satisfy your end users and protect your enterprise’s IT assets, says Gordon Haff, senior cloud strategy marketing and evangelism manager at Red Hat (www.redhat.com).

“For most companies, having a dogmatic policy that prevents the use of SaaS or public cloud providers is just not going to fly because your users will find ways around that and do what they want, so it makes a lot more sense to work with your users and set up policies that work for everybody,” Haff says.

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problem and some solutions that cover several aspects. “Look at the primary problem we’re trying to solve, which is the lack of control of data leaving and entering the company’s network,” he says. “To that end, the best solution is to never have the information actually leave the protected network and data center.”

Top Tip: Approach From Many Angles

There are a couple of steps an organization can take if it wishes to allow its employees to use USB devices, according to Jack Sebbag, vice president of sales for North America at MXI Security (www.mxisecurity.com).

Encryption. Hardware-encrypted USB devices offer the greatest protection because the data onboard can’t be accessed if the device is lost or stolen.

Strong authentication. Most Secure USB devices now offer up to two-factor authentication, including passwords or certificates, before users can access the data.

Biometrics. This form of authentication takes security to the next level because only the user’s fingerprint can unlock the device.

Enterprise management. Secure USB devices that have an optional enterprise management system provide organizations with an additional level of control. IT administrators can issue USB devices to employees already set with security policies tailored toward the organization’s regulations.

Identity Theft Down, Costs Up

A new report from Javelin Strategy & Research found that although 2010 showed a sharp decline in identity theft and fraud—the lowest incidence since Javelin started tracking ID theft in 2003—the cost to individual victims of ID fraud went up. According to the report, credit and debit card ID theft was down for the year by 28%, but out-of-pocket damages increased by 68%, from \$335 in 2009 to \$565 in 2010. It’s also taking longer to resolve ID theft, from 21 hours in 2009 to 26 hours in 2010. Javelin suspects that the shift in time and out-of-pocket expenses is largely due to the increase in new accounts fraud, which entails the criminal opening a new account to begin racking up expenses. This kind of ID fraud is more difficult to detect, which gives the criminals longer to abuse the system.

Health IT Study Cites Privacy Concerns

According to “The Markle Survey of Health in a Networked Life,” doctors and patients both agree that technology can improve the health-care system and lead to better medical care. Both groups, while favoring a greater role for technology, are nonetheless wary of security issues—and both insist that investments in healthcare-related IT include accountability and privacy protections. Healthcare-related technology is expanding, but not as quickly as most would like: Whereas 74% of doctors would prefer to use computers to share patient information with other physicians, only 17% are currently doing so. And patients and doctors disagreed in some areas: 70% of the public said patients should get a written or online summary after each doctor visit, but only 36% of the doctors agreed.



Regulatory Security Compliance Costs High

According to a survey of IT leaders at 46 multinational organizations, regulatory compliance comes at a price—a high price. The Ponemon Institute says that companies spend an average of about \$3.5 million every year ensuring that they’re complying with security requirements imposed by state laws and by federal statutes such as Sarbanes-Oxley. But as high as the price of compliance is, says the report, the cost of noncompliance is even higher: Costs related to business disruptions, reduced productivity, and fees and penalties that result when legal and regulatory compliance goals are not met average about \$9.4 million—about three times the cost of compliance.

DEC Co-Founder Ken Olsen Dies

Former Digital Equipment Corp. CEO Ken Olsen passed away Feb. 6. He was 84. Olsen co-founded DEC in 1957 and ran the company for 35 years until its acquisition by Compaq. Apart from Olsen’s philanthropy, he was lauded for his many contributions to the industry. He is credited with masterminding DEC’s mini-computer initiative, which took significant business away from mainframe vendor IBM in the early 1970s before ceding ground to the personal computer paradigm shift in the 1980s.

HP, Cisco Argue Over IEEE Standards

HP and Cisco had been collaborating on the IEEE 802.1Qbg and IEEE 802.1Qbh data center system tagging standards, but the companies are no longer seeing eye-to-eye. HP is now accusing Cisco of changing the standard, but Cisco claims that customers have been the primary catalyst behind changes. The two companies originally decided to use the Cisco VN-Tag technology for the required tagging system, but the company has altered the scope of the 802.1Qbg and 802.1Qbh specifications. According to HP, each standard is purposed for data center use, but Cisco’s deviation could alter the focus of the specification.

Study Shows Discrepancy In Access To Technology

According to a report from Forrester Research analyst TJ Keitt, titled “Portrait of a Government Information Worker,” government information workers do not have the same access to technological tools as those in the private sector. Specifically, remote worker capabilities such as smartphones, Web 2.0 and cloud-based collaboration tools, and other telecommunication technologies are not as available to government information workers.

A big part of the issue is that government agencies and departments handle a great deal of very sensitive data. For example, in addition to the stores of private data on American citizens, many departments handle information pertinent to national defense or sensitive policy issues. In these cases, a data leak would be disastrous, and these technologies can be exploited, whether by a cyberattack or simply due to a mobile worker misplacing a smartphone or laptop.

Careful Implementation

For the government, there’s a delicate balance of risk and reward that begs caution when moving forward with new technologies. “I don’t think the government is behind the times,” Keitt says, pointing to the president’s stated technology goals and Federal CIO Vivek Kundra’s 25-point plan, which lays out the government’s goals of incorporating cloud computing products into its agencies to be more open and collaborative.



“There was a law that was passed late last year that ensures that the federal government is going to allow a certain portion of its workforce to telecommute,” Keitt says. He notes that the government is implementing more security protocols such as SSL VPN to enable better telecommuting for its workers.

“The government wants to be more nimble, positive, and participatory,” he says. “They’re looking for things like portable computing platforms—tablets, laptops, smartphones. Likewise, because they want to be more open, they’ll be looking at a broader set of collaborative technologies so that it’s not just email and messaging.”

There are, for example, some collaborative developments already in the works, such as the Department of Defense’s “techopedia” and a wikified version of the U.S. Army’s field guide, but according to Keitt, the government has to move at its own pace. “You can’t flip a switch and change the habits and practices of a bureaucracy as big as the U.S. federal government,” he says.

“I think that this is a journey for the federal government,” Keitt continues. “I don’t think by any means they have their heads in the sand. I think their stated position on things demonstrates an eagerness to move forward, but it’s just a matter of them taking the cautious route and ensuring they’ve dotted all the i’s and crossed all the t’s.”

by Seth Colaner

FEATURED COMPANY

Detailed Performance Evaluation

Xangati’s Monitoring Solution Provides An Inside Look At Infrastructure Performance

by Joseph Pasquini

TODAY’S AUSTERE FISCAL REALITIES have challenged network administrators and corporate leaders alike to carefully analyze and restructure their data center operations. It is therefore no surprise that virtualization technologies—complete with their robust feature sets and tempting economies of scale—have been readily embraced and deployed by firms of many shapes and sizes. Virtualization inherently offers IT departments the opportunity to maximize resources and consolidate hardware, and the rise of virtualization across the business landscape has positively and dramatically affected the corporate bottom line.

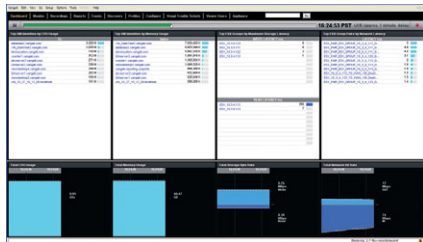
While virtualization certainly provides an undeniable shopping list of benefits, it unfortunately can also conceal some of the underlying data that network managers need to effectively troubleshoot problems and monitor overall network performance.

Xangati Management Dashboard

Cupertino, Calif.-based Xangati (www.xangati.com), an up-and-coming provider of infrastructure performance management solutions, has quickly established itself since its founding in 2006 as a strong presence within the virtualization market segment.

To help IT managers better manage overall application performance in the virtual realm, Xangati has rolled out the latest version of its Xangati Management Dashboard, or XMD, which is designed to apply Xangati’s traffic-monitoring expertise to virtual systems communications by capturing traffic between multiple virtual machines as well as traffic between virtual and physical machines.

Xangati Management Dashboard offers seamless integration with VMware’s vSphere 4.X and ESX 3.5 environments and deploys as a turnkey virtual appliance directly from the vCenter dashboard.



Xangati Management Dashboard monitors the performance of several environments from one easy-to-interpret interface.

XMD provides administrators with real-time continuous visibility into the utilization and interaction of ESX/ESXi hosts, VMs, storage, applications, end-user nodes, and other IP-based network devices.

“The Xangati Management Dashboard is the only performance management solution that has the ability to gather, present, and continuously analyze data feeds cutting across all IT silos,” says David Messina, Xangati’s vice president of product management and marketing. “Unlike other solutions, the XMD goes far beyond

simple data collection from the vCenter API. The XMD is the only infrastructure performance management solution to gather data from both the virtual and physical infrastructures providing the highest level of performance insights possible.”



Messina continues, “XMD includes an unsurpassed set of features that represents the most comprehensive and deep infrastructure performance management solution available today. Its rich analytics-based profiles can scale to cover hundreds of thousands of devices, and all of them are under continuous scrutiny in the context of real-time activity.”

Performance In An Instant

Because XMD does not require a separate OS or database to become operational, Xangati says that its monitoring solution can be up and running in less than 15 minutes.

Once installed, an administrator is presented with a real-time view of his environment’s processing architecture on what Messina refers to as a “single pane of glass” via the XMD dashboard. “Servers, VMs, network, storage, applications, and end users are presented in the same dashboard without the need for any server or desktop agents,” he says.

According to Messina, the visibility offered by XMD allows administrators to thoroughly investigate areas of concern from end to end within the infrastructure rather than taking stab-in-the-dark guesses and being challenged by multiple dead ends and blind spots. “With its ability to cover server, network, storage, and end-user devices, the XMD enables VMware Infrastructure (VI) administrators to be aware of issues outside the VI that may be directly impacting performance, such as a WAN bottleneck that might affect VDI workgroup performance,” Messina explains.

The Xangati dashboard can continuously display more than 150 metrics from eight core elements: VM, ESX/ESXi Host, Application, Group, ESX Group, ESX Group Pairs, Interfaces, and Infrastructure.

Recording For Future Context

Unlike traditional reports seen in other performance management solutions, XMD features an object-handling time of only one microsecond, allowing for the presentation of information in a live, continuous stream akin to a digital video recorder. The immediacy and granularity of the recordable drill-down dashboard lets data center and IT managers see performance degradations as they happen rather than costly minutes later. When faced with end-user complaints regarding performance issues, administrators can leverage XMD’s intuitive dashboard to research the problem and provide

the necessary context for determining the cause of the slowdown.

“One of our customers—a healthcare provider—had an electronic medical record application being virtualized, and the slow performance was being blamed on the VI,” Messina says. “After deploying the XMD, the issue was immediately identified as a bug where a presentation server was intermittently slamming a business logic server with the same host. The problem was DVR-recorded and sent to the application team, who acknowledged the issue and directed the software vendor to fix the problem.”

Four different mechanisms can be easily triggered to capture DVR-like recording information, including administrative-driven, end user-driven, auto recording through vCenter SNMP triggers, and auto recording through profile deviation. Intelligent and automatic profiling establishes performance baselines and alerts administrators of any changes. Recordings can be saved and easily shared, thus facilitating

XANGATI MANAGEMENT DASHBOARD

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Description: Xangati Management Dashboard is a performance management solution for physical and virtual environments, including ESX/ESXi hosts, VMs, storage, networks, applications, and end-user devices.

Interesting Fact: XMD’s agentless monitoring capability provides support for more than 200,000 separate IP-based network devices.

easier issue resolution between the systems and application teams.

The Case For Virtualization Management

“IT managers from companies of many different sizes are looking toward virtualization technologies for their cost savings and operational efficiencies,” Messina says. “But, in order to succeed in deploying these solutions, data center and IT managers need to consider management up front—not as an afterthought—whether for server virtualization or Virtual Desktop Infrastructure.”

Messina contends that XMD offers managers a comprehensive solution for both server virtualization and VDI implementations. “In server virtualization, a robust solution is mandatory to provide the comprehensive insights needed to migrate mission-critical applications to the virtual environment,” Messina says. “On the VDI side, having insights into WAN communication traffic is paramount to see what issues might be impacting VI performance. End users will not tolerate performance issues in a VDI environment.”

Messina concludes, “By covering a wider breadth of data sources than offered by any other infrastructure performance management tool, the XMD enables the deepest troubleshooting available . . . up to 10 times faster than previously possible.” ■

Evaluating Cloud Platforms

Runaware Offers A Method For Knowing Which Solution Is Most Secure

by Kris Glaser Brambila

IT'S NO SURPRISE that cloud computing is growing in popularity. The benefits cloud computing offers are difficult to ignore. There's consolidation, efficiency, high availability, and energy and cost savings, just to name a few. But despite the advantages, many enterprises are wary of prepping their business for the cloud. In a survey conducted by IDC, CIOs ranked the top cloud computing concerns as security and confidentiality of vital information, integration, and reliable performance. "For SMBs, cloud computing transforms your business by giving you nearly immediate access to cutting-edge technology solutions without the need for a substantial capital investment," says Runaware CTO Andy Poulter.

Runaware has been helping companies with cloud computing initiatives for more than a decade, using its TestDrive solution to help users experience SaaS or PaaS offerings before they purchase them. Now a new white paper from Runaware, the "Quantitative Impact and Risk Assessment Framework," or QUIRC, offers enterprises a strategy for evaluating cloud platforms.

According to Poulter, QUIRC is a data-driven method for evaluating the strengths

and weaknesses of varying cloud computing platforms. "By using a quantitative approach, vendors, customers, and regulation agencies are able to comparatively

assess the relative robustness of different cloud vendor offerings and approaches," Poulter

says. "Never before has this been possible." And although QUIRC is currently considered a mere framework that needs additional testing, Poulter says that Runaware stands by its research and hopes QUIRC will help ease the amount of fear, uncertainty, and doubt associated with cloud computing.

Put QUIRC To Work

To evaluate a cloud platform, you must first define risk. "QUIRC uses the definition of risk as a combination of the probability of a security threat event and its severity, measured as its impact," Poulter says.

Next, Runaware identifies six separate security objectives for cloud platforms, based on methodologies created by FIPS (Federal Information Processing Standards) and FISMA (U.S. Federal Information Security Management Act). Runaware lists and defines these security objectives as:

- Losses in confidentiality (the unauthorized disclosure of information)

- Integrity (the unauthorized modification or destruction of information)
- Availability (a disruption of access to an information system)
- Multiparty trust considerations
- Mutual auditability
- Usability

These six security objectives account for most of the attack vectors that occur. "In the paper, the FIPS approach is used as a conceptual basis," Poulter says. "The approach allows categorization of the security risks and impacts by security objectives as well as business verticals and functions."


Runaware employs the Wideband Delphi method, a technique that assigns numerical values to the probability of an attack and its

severity, to collect the scientific information necessary for determining the security of a particular cloud vendor.

Secure The Cloud

To mitigate cloud computing risks, Runaware says, companies should use a combination of preventative, detective, and recovery measures, including utilizing passwords, keycards, badges, firewalls, and encryption; defining security policies; and controlling visitor logs, audit trails, time stamps, motion sensors, and other such elements.

"Start by identifying the areas of risk," Poulter says. "These should be mostly the same as ones [SMEs] would evaluate when they look at internal systems." These risks, according to Poulter, include physical access control, authentication rules, network configuration and security, firewall configuration, and antivirus and spam management.

Poulter says you'll also want to know who at the cloud provider has access to the hosted environment, what that provider can access, and how that provider controls it. 

Threat Impacts On Security

Security Objective	Definition
Confidentiality	Unauthorized information disclosure
Integrity	Unauthorized information changes
Availability	Disruption of access or use of an information system
Multiparty Trust	Breach of SLA of one user due to another user's actions
Auditability	Lack of or compromised auditable record of usage
Usability	Degraded experience for a user

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Managing Electronic Records

Issues & Strategies Related To ERM

by Elizabeth Millard
• • •

THANKS TO SOME recent high-profile events, enterprises are becoming more aware of the business risks of poor information management and record keeping, according to a recent survey by AIIM (Association for Information and Image Management). Most of the struggle can be traced back to the fact that the bulk of company records are electronic. Many organizations still have no systems in place to manage those documents, and even those with a strategy are struggling with policies on emails. Here’s a look at the issue and some tactics that can help.

Current Scene

Management of electronic records is a fairly recent development in the evolution of records management, according to Doug Miles, director of the AIIM Market Intelligence Division. He notes that it’s only been within the past five years that e-discovery has cropped up as a pressing issue, leaving many companies to take a hard look at how they deal with electronic transactions, emails, and other digitally stored content.

In a recent report on the state of records management, Miles found that most survey respondents feel that the importance of records managements has increased recently (see the “Facts & Figures” sidebar for more key findings), but that policy

Key Points

- Despite the importance of electronic records management, many enterprises still don’t have a solid system in place to deal with all aspects of the strategy, according to a recent report.
- Develop a map of storage requirements, including structured and unstructured data and then forecast associated growth.
- Use email storage archiving tools to improve policy enforcement, email server performance, and data destruction strategies.

to those who have a system—and indeed, takes longer than the same process for paper records.” He adds, “Even when the relevant documents have been found, 45% of organizations don’t have a recognized legal hold process for electronic documents to prevent deletion or tampering.”

Add Storage To The Mix

A strong first step in ERM is to take a look at an enterprise’s storage environment, including recent growth trends, challenges with expansion, and areas for improvement. As part of an ERM strategy, IT managers should develop a map of storage requirements, including determining how much data is structured and how much is unstructured, with forecasts

as outsourced options, such as cloud-based services.

Another consideration is storage performance, adds Dave Hunt, CEO of archiving company C2C Systems (www.c2c.com). He notes, “Where repositories are founded in traditional drive arrays, storage performance is typically not an issue, assuming that hosting hardware is not overloaded. Bottlenecks generally occur when processing the data through the server during archival events.”

There’s little that can be done to resolve server I/O latency when an archival operation is taking place, he points out, so defining process time should be focused on the server when it’s at a low-loading profile. “Where storage is hosted within such subsystems as DVD jukeboxes, calculations need to be made that assure the data throughput reflects a sustainable, acceptable performance,” he says.

Toolbox

With storage requirements determined, an organization may want to consider the use of enterprise information-archiving technology. These types of services and applications can be beneficial for creating shortcuts between the email server and user inboxes, which boost server performance and lower the cost of archive storage, believes Tom McCaffrey, director of archiving at Kroll Ontrack (www.krollontrack.com).

a feature that makes e-discovery searches much quicker. McCaffrey notes that organizing email and making it searchable helps a business to bring down e-discovery costs and legal risks.

Tools specifically geared toward e-discovery can also be helpful, believes Miles from AIIM, and generally provide a return on investment in two years or fewer. He states, “An early case assessment feature would seem to offer the benefits of reduced volumes for review, and a better ability to predict overall case costs.”

Facts & Figures

Here are some key findings from the Association for Information and Image Management’s recent “E-Discovery and ERM” survey on the business risks of poor information management:

- In 57% of organizations, recent events such as the BP disaster, the Toyota recalls, and the banking crisis have made senior management “more” or “much more” conscious of risks to the business.
- Eighty-three percent of respondents feel that the importance of records management has increased in the last two to three years, considerably so for 40% of them.
- There is considerable confusion regarding the repository-of-record for emails. Using Outlook archives stored on a network drive is the most popular, at 18%, but 9% are likely to store these files on local hard drives, and 5% print and file. The remainder are split between an ECM/RM system, a dedicated email archive, and shared folders in exchange. Sixteen percent have no policy.
- Twenty-six percent have indiscriminating policies on deletion of all emails, 23% keep everything “just in case,” and 31% have no policies or nonenforced policies. The remainder either manually or automatically declare important emails as records and delete the others.
- Twenty percent of respondents have more than 50 discovery cases a year for regulatory or legal issues, and 13% deal with more than 120 cases per year.

“Even when the relevant documents have been found, 45% of organizations don’t have a recognized legal hold process for electronic documents to prevent deletion or tampering.”

- AIIM Market Intelligence Division’s Doug Miles

creation, system implementation, and standardization are all lacking.

And without a strong records management system in place, searching for specific records can be a challenge. In AIIM’s “E-Discovery and ERM” report, Miles notes, “Discovering electronic records takes twice as long for those organizations with no management system compared

of associated growth rates, according to Ahmar Abbas, senior vice president of global infrastructure management at CSS Corp (www.csscorp.com).

Part of this process should include user surveys to get a grasp of archival requirements, Abbas adds. Once storage and backup requirements are established, IT managers can look at in-house as well

These shortcuts eliminate the need for mailbox quotas, and also create more enforceable retention and destruction policies. Many times, data deletion tactics aren’t employed properly, even though some types of data—such as healthcare records—have mandated destruction timeframes. Archives also improve email storage by providing a central location,



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CLOUD TIPS & TRICKS

Privacy In The Cloud

Finding Security In An Open Environment

BY HOLLY DOLEZALEK

THESE DAYS, IT SEEMS AS THOUGH most enterprises are hoping to save money by moving something to the cloud. They're right to hope, but the truth is you might not save a dime if moving to the cloud causes privacy problems for your company. Here are some tips to help you protect your privacy in the cloud.

Who Will Have Access?

In your own secure corporate environment, it's important to review who has access to what data, whether they need that access, and whether their access should be shut off because they've changed jobs or left the company. That's just as true, if not more so, in the cloud. "In the cloud, people who aren't your employees now have access to your data," says Kurt Johnson, vice president of corporate development for Courion (www.courion.com). "So you have to ask: Which admins have access to your data? How is the cloud provider going to ensure that they're following privacy policies? What steps does the provider take when those admins leave the company or function?"

Compliance Considerations

Whatever regulatory requirements govern your data, you'll need to make sure that your vendor has the configuration to abide

by those requirements. But the provider's platform is only one piece of compliance, and it can only allow you to be compliant, not force you. "Most vendors don't sign up for PCI or HIPAA compliance, because cloud platforms and infrastructure are just one piece of the puzzle," says Larry Beck, senior director of cloud strategy at Avanade (www.avanade.com). "For example, one common requirement is that everyone who has admin access to an application should have a password change requirement every 90 days. They can enforce that on themselves, but not on your application. Platform and data center compliance doesn't equal application compliance."

Additionally, compliance requirements, particularly with medical or patient data, don't just apply to where you house your data. They also apply to how you move it. If you're heading to the cloud and you have compliance requirements, check into what they say about encryption of data while it's in transit.

Buyer Beware

Mark Gilmore, president of Wired Integrations (www.wiredint.com), suggests that the best way to keep data private, at least in the public cloud, is not to put it there. The data you can do without or that doesn't need to be secure is the best choice for the cloud, he says, because it can be difficult to determine which promises of security are legitimate and which are all talk. So ask questions of any cloud vendor you're

considering: How are data secured and segregated from that of others? How do you ensure our data is secure? Will you provide us audit reports on the security of our data? How often do you back up our data, and what is the methodology you use to secure it? "I have had too many interactions with vendors who are all talk," Gilmore says. "They will tell you your data is secure, but when push comes to shove, they are not willing to provide you with proof of data compliance." ²

Best Tips

Here are some other questions to ask vendors about privacy in the cloud:

Will you be doing log monitoring and management? Can I see the data? "Any organization should be allowed to see log data for their portion of the cloud," says Kurt Johnson, vice president of corporate development for Courion (www.courion.com). "You should also ask what response will come if something is out of [the ordinary] and how you will be alerted."

How will your provider respond if you get audited? "We've seen companies run into problems in formal audits because the cloud provider says, 'No, that's proprietary information, so you can't look at how we're managing or securing that,'" Johnson says. "You really need to understand up front what they're going to be doing with every aspect of your data, including encryption, authentication, how your data is isolated from that of others, and so on. It's a good idea to involve security people from the beginning, before the contract gets signed, so that you'll know what questions to ask."

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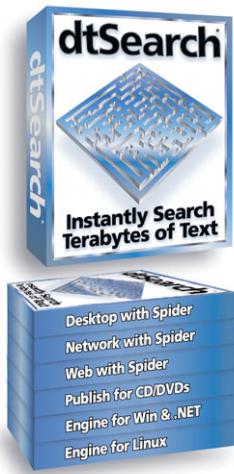
NEW PRODUCT

by Nathan Lake

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DTSEARCH HAS ABOUT 20 YEARS of experience in searching data and file format parsing and conversion. The newest version of the dtSearch Engine (7.66) includes several features that enhance the dtSearch Engine's developer's API. For example, dtSearch Engine 7.66 offers native .NET 4.0 APIs and sample code, as well as MS Azure deployment instructions and sample code. In addition to native 64-bit Visual Studio support, you'll find plenty of other performance enhancements for faceted search and other hierarchical sorting in cases with millions of document metadata tags or database records.

The dtSearch Engine supports a variety of Internet, intranet, and commercial applications through dtSearch Engine for Win & .NET and dtSearch Engine for Linux. Both 32-bit and 64-bit versions are available as well as .NET, Java, and C++ APIs. All dtSearch products can index more than a terabyte of text into a single index. And you can create and simultaneously search an unlimited number of indexes. The software's built-in file parsers and converters can work with a range of popular file types, including MS Office documents and existing Web-ready content from HTML, PDF, and XML/XSL.



dtSearch Engine 7.66




The newest version of the dtSearch Engine works with native .NET 4.0 APIs and includes faceted search and other performance enhancements.

dtSearch's product line can index and search email messages and attachments across Exchange, Outlook, and Thunderbird. For database queries, the dtSearch Engine's APIs are capable of indexing SQL-type databases with BLOB data. The .NET Spider API provides you with local or remote Web site content as a searchable data collection. Searches can span any level of depth and across any number of Web sites. The dtSearch Engine supports more than 25 full-text and fielded data search options, including advanced federated search and forensics features.



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Unified Threat Management

Product	Barracuda NG Firewall	Check Point UTM-1	Check Point UTM-1 Edge N
			
Description	<p>The NG Firewall series of unified threat management devices from Barracuda Networks is composed of 11 hardware appliances for applications ranging from large facilities to small branch offices, plus a virtual appliance for VMware. The latter can be deployed in the cloud and in a hybrid mode.</p> <ul style="list-style-type: none">Supplies antispam, antivirus, Web filtering, Layer 7 application profiling, intrusion prevention, and network access controlThe Barracuda NG Control Center interface provides management of security, content, and traffic policiesFirmware release 5.0 brings support for 64-bit multi-processing and Active Recovery technology <p>Best For: Enterprises, midmarket organizations, and service providers.</p> <p>Price: \$599 to \$32,999</p>	<p>The Check Point UTM-1 family of turnkey, comprehensive security appliances has several models covering the security needs of organizations ranging from about 75 users in size to up to 1,500 employees. There's zero-hour outbreak protection on board in addition to DoS and buffer overflow attack mitigation; instant messaging and P2P firewalling; and antispam via reputation, white/blacklists, and content analysis.</p> <ul style="list-style-type: none">Firewall throughput ranges from 1.5Gbps in the UTM-1 136 to 4.5Gbps in the UTM-1 3076Features IPS, firewall, antivirus, antispymware, URL filtering, Web security, and antispam functionalityVPN throughput of up to 1.1Gbps in the UTM-1 3076Modular Software Blade architecture allows future addition of features such as SSL or IPsec VPN, VoIP, and moreSupport for up to 1.1 million concurrent sessions in the UTM-1 1076, 2076, and 3076IPS throughput of up to 4Gbps in the UTM-1 307680GB to 160GB of onboard storage capacity <p>Best For: Medium-sized to large enterprises.</p> <p>Price: Starts at \$3,500</p>	<p>The Edge N series has a very different focus than other members of Check Point's UTM-1 lineup. It's directed at SMBs and branch offices with pricing to match. Four models, including two ADSL editions, share the same performance specifications but differ in options such as Wi-Fi 802.11n, 3G modem support, Gigabit Ethernet, SFP and USB support, a print server, and more.</p> <ul style="list-style-type: none">1Gbps firewall throughput200Mbps VPN throughput60,000 concurrent firewall connections <p>Best For: Branch offices and small to medium-sized businesses.</p> <p>Price: Starts at \$950</p>

Product	Network Box M-255, M-285 & M-385	SonicWALL NSA 2400	SonicWALL NSA 4500
			
Description	<p>Network Box offers a range of UTM devices, with three aimed at medium-sized enterprises. New from Network Box is the M-385, which makes use of a 3GHz dual-core Intel Core 2 Duo processor to power its impressive security technologies. The M-285 (pictured) features a 2GHz Intel Pentium M processor. There's stateful packet inspection and packet filtering in the firewall, IDS and IDP, anti-malware, antispam/phishing, content filtering, IPsec and SSL VPN, and more.</p> <ul style="list-style-type: none">Supports up to 150 usersThe M-385 has seven Gigabit Ethernet ports (expandable to 11 and with fiber support); the M-285 has four Gigabit Ethernet ports and a 100Mbps port <p>Best For: Medium-sized enterprises.</p> <p>Contact: (832) 242-5758 www.network-box.com</p>	<p>SonicWALL says that its NSA 2400 gives small to mid-sized businesses comprehensive internal and external protection with easy, flexible setup. It boasts six Gigabit Ethernet ports plus dual USB connections for potential 3G wireless modem configuration access. The NSA 2400 is a next-generation firewall platform, the company says, bringing dual-core performance to the table along with advanced protection technologies.</p> <ul style="list-style-type: none">Application Intelligence and Control addresses leakage of sensitive dataGranular control over basic policies and rulesReassembly-Free Deep Packet Inspection uncovers hidden threatsGateway antivirus, antispymware, and intrusion prevention <p>Best For: Branch offices and small to medium-sized businesses.</p>	<p>SonicWALL bills its NSA 4500 as a next-generation firewall platform for central-site and large distributed environments needing high capacity and performance. The NSA 4500 includes dual-core processing, IPS, SSL VPN, high-availability technology, advanced networking, and proprietary features in an effort to provide real-time protection without sacrificing speed. SonicWALL says that the NSA 4500 supports a large but flexible deployment with 1,500 site-to-site VPN tunnels, 500 global VPN clients (3,000 maximum), two SSL VPN NetExtender clients (30 maximum), and two Virtual Assist Technicians (10 maximum).</p> <ul style="list-style-type: none">Reassembly-Free Deep Packet Inspection firewallSonicWALL Clean VPN secures tunnel access and trafficApplication Intelligence and Control prevents data leakage <p>Best For: Midsized businesses; central-site and large distributed environments.</p>

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Marty Sems

Crossbeam Systems X-Series



The X-Series Network Security Platform family from Crossbeam brings together a quartet of security appliances for a range of needs. The X20, X30, X60, and X80-S are based upon a blade-style, modular architecture—what Crossbeam calls an open, adaptable platform—for expandability. Each encloses at least one APM (application processor module), an NPM (network processor module), and a CPM (control processor module), along with Crossbeam’s latest XOS operating system.

- Models support throughput of 5Gbps in the X20 to 150Gbps in the X80-S
- APM blades are available with up to 12 cores
- The updated XOS operating system version 9.5 supports more security applications

Best For: Service providers, telcos, and large enterprises.

Price: Starts at \$50,000 for the X20

Fortinet FortiGate-3040B



High-bandwidth networks require high-bandwidth security. The FortiGate-3040B from Fortinet is up to the challenge. Sporting the highest 10Gb port density in its class, according to Fortinet, the FortiGate-3040B provides subscription-based, real-time security coverage. And with its purpose-built FortiASIC processors, it doesn’t bog down the network.

- Hardware-accelerated 10Gbps Ethernet SFP+ and 1Gbps SFP ports
- 40Gbps firewall and 16Gbps IPsec VPN throughput
- Can support up to 4 million concurrent sessions and 100,000 new sessions per second
- 1.2Gbps antivirus and 5Gbps IPS throughput
- Redundant, hot-swappable power supplies

Best For: Large enterprises.

Price: Starts at \$39,995

Juniper SRX Series Services Gateways For The Branch



Juniper says its SRX Series Services Gateways For The Branch UTMs are the only solutions that consolidate switching, routing, and security services in a single device to connect, secure, and manage any network. With five models for branch offices (and another five for the data center), the SRX series aims to deliver proven security services combined with superior availability and performance, while reducing total cost of ownership.

- Firewall, VPN, IPS, antivirus, antispam, Web filtering, and content filtering
- Wizards for quick and easy deployment
- AppSecure application-level monitoring and firewall
- Integrated and centralized reporting, configuration, policy management
- Integrated WAN/routing/QoS with Ethernet, 3G, LTE, T1/E1, xDSL, serial, and DOCSIS-3 options

Best For: Branch offices and small to medium-sized businesses.

Price: Starts at \$699

Trustwave Unified Threat Management



Trustwave says that its Unified Threat Management delivers a combination of critical security technologies in a single, cost-effective package. With two tiered models to fit a variety of perimeter security needs, Trustwave UTM is available as an appliance or as a fully managed service. Fully configured with antivirus, VPN, intrusion prevention, and a firewall, the appliances can furnish a total throughput of between 4Mbps (TS-10) and 124Mbps (TS-100).

- Stateful firewall
- Inline IPS
- Web and email gateway antivirus
- Web content filtering
- Site-to-site and remote user VPN
- Remote application access control

Best For: Small, medium-sized, and distributed enterprises.

WatchGuard XTM 5 Series



A suite of management tools and enough speed to handle high-speed LAN backbone infrastructures and 1Gbps WAN connections mark the WatchGuard XTM 5 series of UTMs for midrange enterprises and SMBs. IT management access is provided by a centralized console, a CLI with script support, and a browser interface. The scalable XTM 5 series also comes with enhanced reporting skills and real-time monitoring provisions.

- Throughput up to 2.3Gbps firewall, 800Mbps XTM, and 750Mbps VPN in the XTM 530
- Up to 350,000 concurrent connections in the XTM 530
- 2,500 local user database
- Up to 600 branch office and 1,000 mobile VPN tunnels in the XTM 530
- Seven interface ports (six GbE and one FE)

Best For: Small to medium-sized businesses.

Price: Starts at \$1,590 with one-year security bundle

WatchGuard XTM 8 Series



The WatchGuard XTM 8 family of three UTM devices addresses the myriad security needs of main offices, headquarters, and other major facilities. The XTM 8 products supply full HTTPS inspection, IPS, antispam, and antivirus, plus optional features such as URL filtering, app control, reputation-enabled defense, and more. Administrators have access to the XTM 8 via scriptable command line, Web console, and WatchGuard System Manager. The system also provides rich reporting, real-time monitoring, clustering, and high availability (active/active and active/passive) features.

- Throughput up to 5Gbps firewall, 1.6Gbps XTM, and 1.7Gbps VPN in the XTM 830
- Up to 1 million concurrent connections in the XTM 830
- Up to 6,000 branch office VPN tunnels in the XTM 830
- 10 1Gbps Ethernet interface ports (four fiber ports optional)

Best For: Main offices/headquarters, medium-sized to large enterprises, and data centers.

Price: Starts at \$7,200 with one-year security bundle

Report Shows Third-Party Apps Are Security Weak Point

Vulnerabilities are the proverbial Achilles' heel of modern IT systems, and in the "Secunia Yearly Report 2010," the security experts found that vulnerabilities in third-party applications are on the rise. Secunia found that last year, only 13% of vulnerabilities were in the OS, while 18% were in programs from Microsoft. The rest of the vulnerabilities were caused by third-party programs.

"The important message here is that cyber-criminals don't need Microsoft vulnerabilities to compromise your infrastructure, because they have more than enough opportunities in third-party programs," says Stefan Frei, research analyst director at Secunia.

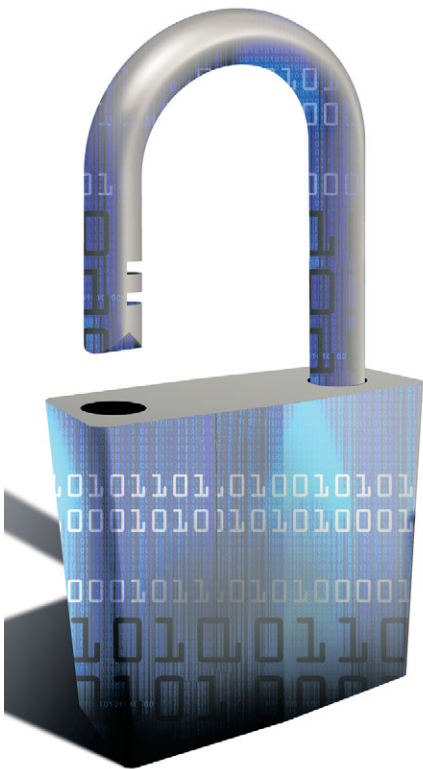
One of the key differences between Microsoft and third-party programs is Windows' built-in Automatic Update, which provides an easy way for people to patch problems. Overall, there were about four times more vulnerabilities in third-party programs than in Microsoft programs. Because most vulnerabilities can be remotely exploited, the threat is relevant for all types of organizations. "We examined the top 50 vulnerability endpoints and found that there were 26 programs from Microsoft and 24 from third-party vendors. The number of vulnerabilities in the top 50 portfolio increased almost fourfold in the last three years, which was an increase of 71% from 2009 to 2010," Frei says.

Bypass Security

The Secunia report also found that cyber-criminals don't necessarily need zero-day exploits to bypass security. "On a typical PC in the last two years, 66% of the vulnerabilities had a patch available on the day of disclosure, so there's a lot that patching your PC can do to block cybercriminals," Frei says. In terms of threats from third-party applications, Secunia found that the top 50 portfolio contained only 14 third-party vendors, and the report indicates that many programs do not provide update options that are easy to use or automatic. Even with applications that do provide such update options, users may not accept the update because they are either unaware of or overwhelmed by the complexity and frequency of what's needed to keep third-party apps secure.

"One of the keys is that your organization needs to know what is really installed on the infrastructure," Frei says.

by Nathan Lake



Easing Email Management

Exchange 2010 May Aid Management Woes

by Jean Thilmany

. . .

EMAIL MANAGEMENT REMAINS a complex undertaking for IT managers, with spam and email security among the biggest problems, according to Mimecast's recent Microsoft Exchange 2010 Infrastructure Survey. The survey indicates that IT managers want to be able to harness

Key Points

- Managing enterprise email use and needs remains a complex business.
- Email archiving is becoming a larger part of management concern.
- Many enterprises plan to upgrade to Microsoft Exchange 2010 within the next two years, but they must also look at upgraded management tools to see if they are compatible and meet needs.

the new features of Microsoft Exchange 2010 without introducing additional risk, cost, and complexity during the migration process.

To deal with spam and email security issues, 50% of respondents reported they had at least two solutions for email and

Microsoft Exchange address archiving, but not adequately.

In a financial services firm—where rules are in place about what kind of information a person can send via email—compliance officers need to be able to search all sent and received emails for terms and for trades. Email is archived according to strict compliance rules, Goerlich says.

Goerlich believes Exchange 2010 does a better job of making searches easier than past versions; however, he says the updated version does require more disk space for archival purses. "You can put archives on less expensive disks, but the way it's archived in 2010 requires more disk [space]," he says. "We're tracking this as we move from Exchange 2007 to 2010, and archiving costs end up being a wash."

Microsoft Exchange 2010 does allow for archiving emails directly from a user's mailbox. Goerlich's firm currently uses a third-party archiving system but is looking at Exchange 2010's archiving feature as the firm continues the move to the new program.

"We're looking at costs," he says. "We're looking at what's in [Microsoft Exchange] 2010 that would allow us to archive, but we're also looking at the cost of managing it and using disk space."

quotas to staff. And that can lead to a compliance catastrophe, says Alec Milton, managing director of product marketing at Oasys Ltd. Milton explains that employees are being assigned email quotas because managers are discovering Inboxes are getting too large. He says employees then delete important emails because someone is putting pressure on them.

For enterprises with compliance issues or that operate in sectors where potential litigation is always a risk, such as engineering, employees need pertinent documentation at their fingertips.

"Nowadays, that's all email rather than letters changing hands, and emails are in Inboxes of individuals that might no longer be with the firm," Milton says.

To reduce email management headaches, Goerlich recommends partnering with a company to perform the day-to-day management of an enterprise email system. The enterprise system remains on the premises, but the partnering company monitors it remotely. Goerlich's enterprise put such a partnership in place two years ago, and it found that the cost was less than hiring IT staff dedicated to email management and allows staff to undertake other responsibilities.

"So before, 80% of a person's time could be spent working with email commodities

“So before, 80% of a person’s time could be spent working with email commodities like [Microsoft] Exchange, but now it’s spent delivering reports to executive management for business intelligence.”

- Network Operations & Security Manager J. Wolfgang Goerlich

20% said they had at least three, Orlando Scott-Cowley, Mimecast Internet and messaging security and compliance expert, wrote in a statement.

Nearly 68% of those surveyed plan to upgrade to Microsoft Exchange 2010 within the next two years and 51% plan to within a year, though slightly more than 25% of respondents said they didn't have enough IT resources to tackle the migration, Scott-Cowley says.

In With The Old

J. Wolfgang Goerlich, a network operations and security manager at a Midwest financial services firm, agrees that managing enterprise email needs is a more complex undertaking than ever. He says big issues include uptime and performance, which are more important than ever in an age when most enterprise employees rely on email to perform their jobs. But another management issue has been creeping to the fore of late.

"One thing we have to deliver now that we didn't have to deliver five or 10 years ago is the archiving," says Goerlich. He explains that updated versions of

A third-party archiving system can act as a defense against email downtime at the enterprise level, says Norman Graham, vice president of product development and support at ArcMail (arcmail.com), which develops archiving systems. These systems reduce the load on the email server and allow access to email when the email server is down. They also can be used to restore the server when it's operational again, he says.

It's important to note that business email risk includes more than just the risk of enterprise system downtime. It also includes local risks that affect individual employees, such as the loss of access to emails deleted accidentally or to emails stored at the desktop level when that system crashes.

Easy Archives

Lack of disk space is indeed a problem encountered by email managers at nearly all enterprises. Today's enterprise email users are demanding the unlimited storage space they're used to with their Web-based email accounts, Goerlich adds.

Because enterprise email disk space is finite, many email managers assign storage

like [Microsoft] Exchange, but now it's spent delivering reports to executive management for business intelligence," Goerlich says.

And in this age of email management complexity, anything that simplifies email management is greeted enthusiastically, he adds. ■

Mobile Mail

When considering email management options for your enterprise, Bob Leibholz, senior vice president of sales and business development at Intermedia, says you need to remember to include the mobile devices your employees are using. "People don't work on desktop[s] or laptop[s] anymore," he says.

Leibholz explains that Microsoft Exchange can be implemented to manage the emails for these mobile users. So when users log into their email accounts remotely, Enterprise can manage those emails, as well as email the user accesses using his desktop computer.

SIX QUICK TIPS

Cutting Telecom Spending

Find Hidden Costs To Keep Your Telecom Bills In Check

by Sixto Ortiz Jr.

• • •

**TELECOMMUNICATIONS ARE ABSOLUTE-
LY** essential to successfully conducting business in today’s hyper-competitive and interconnected world. Today’s telecom-
munications lexicon has expanded well beyond POTS (plain old telephone ser-
vice) as VoIP systems that merge data and voice networks continue to gain traction.

But there is one clear downside to all this innovation: complexity. And complexity increases the odds that organizations may eventually overpay for telecommunications services. Staying connected is necessary to staying competitive, but organizations must be cognizant of expenses.

Standardize On Equipment

An easy way for organizations to save on telecommunications support expenses is to standardize on specific types or lines of devices, says David Schofield, direc-
tor for wireless mobility at Alsbridge (tag .alsbridge.com). The issue, he adds, is that too many organizations try to meet the personal demands of employees who want to sport the latest and greatest gadget. Standardization not only provides consistency in terms of a mobile platform but also simplifies troubleshooting when device problems occur.

Ferret Out Hidden Costs

Everyone knows telephone bills are complex documents that can be just about impossible for average consumers to understand. Corporations face that very problem, only it is duplicated hundreds, even thousands of times over multiple bills charging for a plethora of business services. Hidden charges for esoteric, lit-
tle-used services can potentially add up to thousands of wasted dollars.

An often overlooked culprit is forgot-
ten telephone lines at remote locations, says Eric Wichhart, CEO of ConnectU (www.connectutech.com). These remote locations are often out of sight and out of mind, so they don’t get scrutinized as close-
ly as those lines at the organization head-
quarters, he adds. Administrators should be especially cognizant of reducing unused lines whenever personnel reductions occur, Wichhart says.

Jonathan Pedersen, managing partner at the Telco Management Group (www .telcomanagementgroup.net), says organi-
zations should be wary of paying for long distance packages that go largely unused. For example, an organization that only uses 800 minutes out of a 5,000-minute-
per-month long distance package billed at three cents per minute is really paying 18.8 cents per minute of usage.

Another hidden cost, he adds, is “inside wire maintenance.” This adds \$5 to the cost of each line and covers the cost of a line going down when a problem is found in the client’s wiring system, Pedersen says. Essentially, this is an insurance pol-
icy to cover these potential (but rare) repair costs. As an illustration, he adds, a business with 10 lines could pay \$600 per year in additional costs on their phone bills if they don’t eliminate this hidden cost from their plans.

Watch Plan Allowances

A key area where organization telecom-
munications bills can get out of control is in usage overages for various reasons, from exceeding allocated minutes to roam-
ing charges. For example, costs for interna-
tional voice and data roaming can be very high and add up quickly, says Wayne DeCesaris, vice president of managed solu-
tions at Tangoe (www.tangoe.com).

To make matters worse, users and admin-
istrators may not even be aware they are incurring roaming charges until they face a large bill. DeCesaris recommends control-
ling these roaming costs through real-time cost management such as plan reassign-
ment, data/SMS restrictions, and adminis-
trative cost limitation, such as prohibiting data downloads and application updates. An easy solution, he adds, is to provide employ-
ees with a travel phone that is explicitly for that purpose.

Schofield says organizations should mon-
itor individual usage and manage expens-
es by using contractually available plans to increase flexibility and reduce monthly expenses. He recommends quarterly audits to assess usage patterns and calibrate plans accordingly.

Know What You’re Paying For

Stories of telephone companies that have made costly errors on both consumer and business plans abound. While com-
mitting errors is human, detecting errors that can result in costly overpayments is not an easy task.

The first step is for an organization to ensure all telecommunications assets it owns are assigned to specific employees and plans, says Mike Gorman, CTO at Rivermine (www.rivermine.com). Doing this kind of “telecom bookkeeping” keeps organizations from paying for unused lines or continuing to pay for wireless voice and data plans assigned to employees who have left the organization. In short, organi-
zations should audit their telecommunica-
tions environment to clearly understand what they have.

Once a telecommunications inventory is determined, organizations should then map the inventory to corresponding invoices to ensure bills are correct. Many companies, Gorman says, have identified millions of dollars in cost savings simply by ferreting out invoice errors that have carried over from month to month. A TEM (Telecom Expense Management) solution can ease this process, he adds, by scanning invoices as they arrive and flagging errors. Gorman cites the example of a Fortune 500 company that discovered it was paying for another company’s circuit for several years due to a data entry error committed by the carrier. **P**

Most Practical Tip:

Use Monitoring To Maximize Your VoIP Investment

VoIP makes tremendous business sense; after all, combining data and voice networks reduces complexity by using a single conduit for all voice and data traffic. But the addi-
tional overhead that voice applications place on existing data network infrastructures is a potential downside to VoIP, says David Britt, chief technology officer at nMetrics (www .nmetrics.com.au).

An overstressed VoIP network can lead to poor voice quality, a situation that will quickly lead to complaints as users tangle with poor telephony performance. Effective network performance monitoring, Britt says, is the key organizations need to maximize their return on investment in VoIP. But, he adds, monitor-
ing in this context can be a challenge because VoIP’s point-to-point communication flows bypass centralized data centers and may not be visible to traditional monitoring tools.

Organizations can resolve this issue by de-
ploying low-cost monitoring devices in remote sites that are able to identify and record both VoIP and data flows, Britt says. Devices should be cheap enough to enable wide-scale deployment but effective enough so key per-
formance metrics that indicate good call qual-
ity can be effectively monitored. Deploying integrated network performance monitoring solutions that can provide performance indica-
tors across the whole environment, Britt says, is critical in reaping the cost savings promised by a shift to VoIP.

Easiest To Implement:

Avoid Teleconferencing Troubles

Teleconferencing can be a huge money saver that eliminates the need for employees to travel far away to attend meetings. But unwise use of teleconferencing options can be a money black hole. Anandan Jayaraman, chief product and strategy officer at Connectiva Systems (www.connectivasystems.com), says organizations should avoid using toll-free tele-
conferencing numbers from international loca-
tions, because these are three to four times more expensive than regular call charges.

BONUS TIPS

■ **Use social networking.**
David Britt, chief technology officer at nMetrics (www.nmet-
rics.com.au), says companies can save on telecommunica-
tions costs by taking advan-
tage of social networking,

Web 2.0 technologies such as instant messaging, Twitter, or even Facebook.

■ **Outsource some services.**
It makes sense for some com-
panies to outsource wireless

help desk services, says Mike Gorman, CTO at Rivermine (www.rivermine.com). This is because expert wireless sup-
port can be easily provided without having to maintain an internal support function.

nMetrics can now monitor VoIP at remote sites.

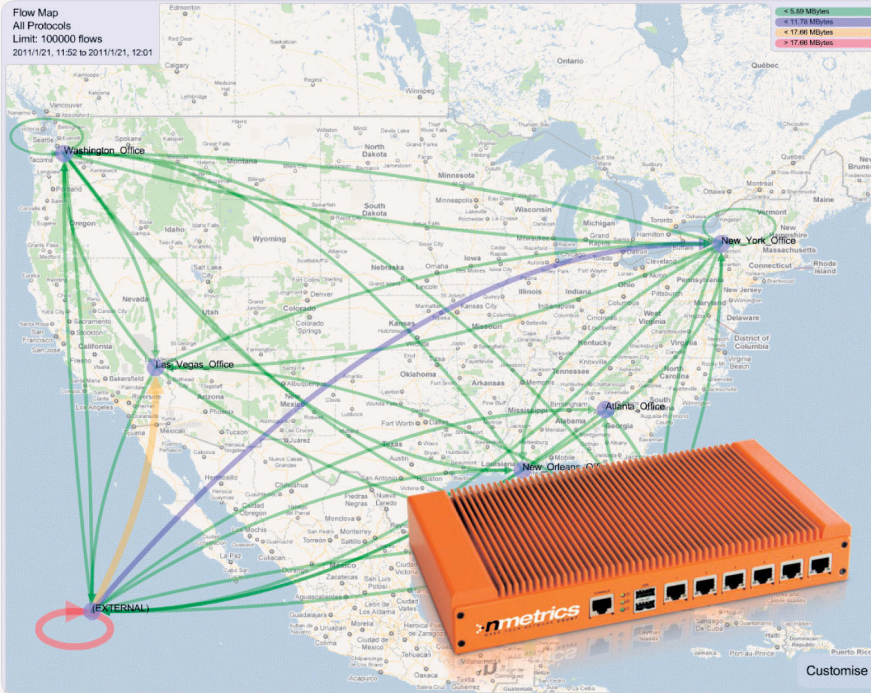
Network operators often struggle with visibility at remote sites. nMetrics Metascope™ includes full VoIP analysis capabilities, as well as the session and application based monitoring for which nMetrics are known.






USA contact: OASYS - Open Access Systems Corporation: chrisj@oasyscorp.com: 973-838-5525




www.nmetrics.net

Look for us on



Data Center Cleaning Services

Product	<div>Controlled Contamination Services</div> <div></div>	<div>Data Clean</div> <div></div>	<div>Data-Tec Systems</div> <div></div>
Description	<p>Specializing in working with data centers of all sizes, Controlled Contamination Services can clean the most sensitive components to rid your data center of fine particles, residue buildup, and other contaminants. Professionals will clean server rooms with the latest micro-cleaning techniques. Controlled Contamination Services performs background checks on its own employees to ensure that your facilities and equipment are in the right hands.</p> <ul style="list-style-type: none">• Services for UPS rooms, computer rooms, and network control centers• Proper cleaning materials reduce electrostatic charges and protect sensitive environments• Cleaning services also disinfect raised floor areas and command centers• Removes dust that air filters can't catch <p>Best For: Data centers with sensitive equipment that needs cleaning.</p>	<p>For more than 30 years, Data Clean has been trusted by thousands of controlled environments worldwide. Data Clean specializes in maintenance and the identification, cleaning, and remediation of contamination that costs you where it counts: reduced productivity, customer satisfaction, downtime, and lost revenue.</p> <ul style="list-style-type: none">• Specializes in controlled environments: data centers, computer rooms, and cleanrooms• Full-service branches located in the United States, Canada, Mexico, Saudi Arabia, and Asia• Flexible scheduling 24/7• Dedicated workforce of highly trained and uniformed technicians• 100% satisfaction guarantee <p>Best For: Data centers that demand detail-oriented cleaning, regular maintenance, and post-construction cleaning.</p> <p>Contact: (800) 328-2256 www.dataclean.com</p>	<p>Data-Tec Systems specializes in servicing a variety of IT-related facilities, including computer rooms, server rooms, print facilities, MDF rooms, item processing rooms, and even general office areas on raised flooring. Data-Tec Systems has been providing maintenance services since 1991 and can care for equipment, tile, subfloor, and access floor cleaning as a complete package. Data-Tec Systems employs trained technicians who know how to manage delicate IT equipment while cleaning data center rooms.</p> <ul style="list-style-type: none">• Periodic computer room exterior shell cleaning• Access floor tile surface cleaning with pretreated, environmentally safe cleaners• Subfloor tack cloth wipe-down• Access floor installation and replacement <p>Best For: Data centers that utilize multiple rooms.</p>

Product	<div>ProSource Mission Critical Services</div> <div></div>	<div>Sealco</div> <div></div>	<div>SPEC-CLEAN</div> <div></div>
Description	<p>ProSource offers mission-critical data center cleaning services that consist of multitier, time-sequenced preventive maintenance plans for cleaning the data center's subfloor, raised floor, equipment surfaces, and ceiling areas. ProSource also offers subfloor encapsulation that includes an epoxy coating application to prevent subfloor plenum dust. Additionally, ProSource offers many products to help prevent contamination and static build-up in the data center, such as contamination control sticky mats, bypass airflow grommets and blanking panels, antistatic cleaning chemicals, and raised floor supplies.</p> <ul style="list-style-type: none">• Standard service options include annual, semi-annual, quarterly, and monthly preventive maintenance service plans• Customized plans are available to meet the specific needs of individual facilities• Raised floor surface cleaning features Pro-Tek and Microfiber Flat Mopping System <p>Best For: Data centers that desire to prevent the accumulation of dust and contamination that can cause unwanted downtime.</p>	<p>Sealco specializes in cleaning and maintaining computer rooms and their support equipment. Whether it's post-construction cleaning or a preventive maintenance program, Sealco's services will allow your data center to meet today's environmental needs at an affordable price. Acknowledging the customer's concern for safety and security, all Sealco technicians receive extensive background checks and training in data center operations.</p> <ul style="list-style-type: none">• 26 years in the data center cleaning industry• Permanent full-time employees are background-checked and drug-tested both before and during employment• AirSeal bypass airflow programs designed to decrease energy consumption and increase infrastructure capacity• Full line of computer room products• Zinc whisker remediation• Nationwide services <p>Best For: Any IT environment that needs cleaning services performed on any scale.</p>	<p>SPEC-CLEAN provides continuous maintenance programs and post-construction specialized cleaning that are based on the needs of your data center or critical environment with flexible scheduling and full-time trained technicians. SPEC-CLEAN services include exterior and interior hardware cleaning, HEPA vacuuming of the sub-floor, and reconditioning the surface of raised floor and non-raised floor environments. The company also provides environmental follow-up site reports, emergency cleaning, and zinc whisker remediation.</p> <ul style="list-style-type: none">• Complete cleaning of exterior and interior of server cabinets• HEPA vacuuming takes care of dust on exterior cabinets, monitors, and flat surfaces• Client walk-throughs to ensure that you're 100% satisfied• Cleaning solutions used are approved for data centers and mission-critical environments <p>Best For: Data center managers in search of reliable, detail-oriented deep cleaning.</p>

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Rod Scher

GCA Services Group



GCA Services Group does more than simply clean your data center; it offers a host of facility maintenance programs suited for the needs of individual data centers. GCA Services also offers custom Green Cleaning to ensure the health and safety of occupants while ensuring that it uses the most environmentally friendly methods available.

- Services adhere to cGMP techniques, IEST Federal Standards, and ISO Cleanroom Operations Standards
- Maintains bio-pharmaceutical, semiconductor, aerospace, bio-safety, chemical, defense, nanotechnology, and optics environments
- Sterile environment cleaning includes decontamination, disinfection, gown room management, lab support services, and more
- The Green Cleaning program provides custodial effectiveness assessments, sustainable cleaning processes, and certified sustainable chemicals while complying with GREENGUARD and offering Green Seal-compliant products

Best For: Environmentally conscious data centers.

Pegasus Cleanroom Services



Specializing in designing and implementing a maintenance program for data centers of any size, Pegasus Cleanroom Services seeks to enhance mission-critical environments by cleaning and protecting data room assets. Pegasus Cleanroom Services can take care of data processing, call center, command center, Web hosting, colocation, and telecom departments. Additionally, Pegasus provides a host of standard data center cleaning services, such as general cleaning, access floor cleaning, subfloor cleaning, and equipment surface cleaning.

- Offers environmental sampling and reporting
- Disaster recovery cleaning available
- ISO testing/room certification
- Antistatic floor care and monitoring
- Develop your own personally scheduled plan twice a year, quarterly, or daily

Best For: Data center administrators who value personally developed cleaning schedules.

Plenum Cleaning Services



Plenum Cleaning Services cleans data centers, telecom centers, and MDF and IDF rooms, as well as power/electrical rooms in accordance with ISO 14644 standards without introducing any liquids or scrubbing machines that require liquid. Plenum Cleaning Services can customize a data center cleaning program to meet your business and budgetary needs. Available services include cleaning of plenums, access floor tiles (all sides), access floor frames, vinyl composition tile floors (strip and wax), hardware, equipment, cages, fences, overhead cable trays, lights, furniture, and wall fixtures. Plenum Cleaning Services also offers post data center construction cleaning.

- Improves the static dissipation properties and prolongs the condition of the high-pressure laminate access floor
- Lowers cooling costs by reducing the air density and improves the air quality by removing 99.999% of dust, pollen, mold, bacteria, and any airborne particles with a size of 0.12 micron or larger
- Prolongs the lifetime of hardware and equipment by maintaining optimal operating conditions, including airflow and temperature
- Improves aesthetics
- Provides unsurpassed service and offers a 100% customer satisfaction guarantee
- References available with written estimate

Best For: Preventing costly downtime related to thermal shutdown as a result of components overheating due to dust and debris buildup.

Specialty Cleaning Services



Specialty Cleaning Services can effectively clean data centers, while also taking care of cleanroom, industrial lighting, acoustical ceiling tile, and post-construction cleaning. Offering five basic services, Specialty Cleaning Services uses HEPA-filtered vacuums, lint-free dust cloths, and sterile cleaning agents to complete commercial cleaning tasks such as exterior hardware cleaning, top-of-floor cleaning, underfloor plenum cleaning, above-ceiling cleaning, air sampling, and environmental reports.

- Heavy-duty cleaning for post-construction facilities
- Cleanroom sanitation for large facilities
- Water-based, nontoxic cleaning materials for acoustical ceiling tile
- Services are available for scheduled intervals throughout the year

Best For: Data centers that want detailed, hands-on professional cleaning services.

Sterile Environment Technologies



Sterile Environment Technologies is a national leader in data center cleaning that brings cleanroom-level protocols to data centers, computer rooms, server farms, and other sensitive critical and high-tech environments. SET3 can clean data centers of all sizes that require cooling efficiency, maximum uptime, and healthy air for employees. In addition, Sterile Environment Technologies is a highly sought-after consulting and services firm that can audit your facility's needs and provide specific services such as belt debris, zinc needle, and Halon/FM200 remediation services; onsite interior electronics/tape/motherboard decontamination; antistatic subfloor surface sealing; and tacky mat provisioning.

- Provides cleaning services for subfloors, server cabinets, racking, access floors, antistatic wax surfaces, open ceilings, ceiling plenums, and more
- Highly trained and experienced managers and technicians
- Cleanroom-approved chemicals and equipment to ensure the long-term safety and health of your environment

Best For: All critical environments that follow Federal 209E and ISO 14644 standards.

Do you have a
NEW
PRODUCT
that data center/IT
managers would be
interested in
learning about?

Send your press release
or related
product information
to press@processor.com.

Android Becomes World's Best-Selling Smartphone OS

Last year, Android's worldwide market share increased from 8.4% to 32.5% and overtook Nokia's Symbian OS (30.6% market share) to become the best-selling smartphone OS in the world, according to analysts at Canalys. In the fourth quarter of last year alone, 32.9 million Android smartphones were sold worldwide. In third place after Android and Symbian is the Apple iOS with 16%, followed by the BlackBerry OS (14.4%) and Windows Phone 7 (3.1%). In its study, Canalys also found that the total smartphone sales last year grew by 80% compared to 2009.



IBM To Fund Startup America

IBM will support President Barack Obama's Startup America campaign by investing \$150 million in the program this year. The program was developed to help U.S. entrepreneurs develop businesses using new, creative technologies. The company says the investment will foster the coaching and mentoring of startup businesses in the United States. IBM hopes to see increased collaboration between the academic and venture capital communities with expanded educational opportunities regarding emerging technology. Participants will likely be involved in finding solutions in the healthcare, energy, and transportation industries.

SEC Charges Six With Insider Trading

The Securities and Exchange Commission has filed civil insider trading charges against six people associated with the expert networking firm Primary Global Research. The SEC says four consultants to the firm, aided by two Primary Global employees, leaked nonpublic information about companies such as Apple, AMD, Dell, and Flextronics to hedge fund managers and other investors. The tips, which included information on the companies' sales, earnings, and financial performance, helped the investors earn about \$6 million, according to the SEC. The Justice Department has filed criminal charges against the same group.

Healthcare Software Venture Capital Funding Experiences Growth

A new report from Dow Jones VentureSource shows that venture capital investments were up 19% year over year for medical software and information services, increasing from \$387.5 million in 2009 to \$460 million in 2010. Healthcare services in particular saw a big jump, climbing 29% in deal activity and tripling in capital raised. Analysts expect the upward trend to continue due in large part to continued efforts of healthcare providers to transition away from paper-based medical records in favor of electronic records, spurred on by government directives encouraging providers to make the switch to digital as soon as possible. Other factors are patients' increasing use of the Internet to monitor personal health records and the increased adoption of applications to manage healthcare workflows.

CASE STUDY

Track Your IT Costs To The Penny

Business Process Management Tools Show Exactly How IT Dollars Are Allocated

by Julie Sartain

• • •

MANAGING AND CREATING AN IT budget can create a migraine for even the most seasoned professional. Knowing how much money to spend, and where to best spend it, requires a thorough knowledge of both the business and technology available.

ICCM Solutions (www.iccm.co.uk), an ITIL-compliant service management company headquartered in the UK, bridges the gap between business and technology knowledge with its e-Service Desk solutions package. The product is built on top of a BPM (business process management) tool that blends an off-the-shelf ITSM process with an easy design that can be adapted with minimal custom programming to meet its client's specific needs.

Miller-Valentine Group, a national commercial and residential real estate company headquartered in Dayton, Ohio, purchased e-Service Desk so the IT team could surrender control of its budget and implement service-level allocation, putting 100% of the decisions about IT spending in the hands of each business unit head, says Michael Gutman, vice president of IT/IS at Miller-Valentine.

Financed According To Services

IT departments should be financed according to the individual services they provide, Gutman says, not by an annual distribution of funds based on estimated assumptions. Miller-Valentine needed to transition from a traditional cost center to a pay-for-service ITSM model with a service catalog to help answer that age-old question enterprise leaders have with IT: "What am I paying for?"

"Since that time, we've been successful in documenting our services, improving service levels, and helping our customers understand the answer to that question. IT is no longer a fiscal black hole you just throw money down. Now people actually know where that money goes," Gutman says.

"The challenge we faced was tying request and incident management through to the financial model our department had adopted," says Rich Rouse, Miller-Valentine help desk site leader. "Traditional call-tracking products failed to provide us enough flexibility to do this effectively. We found that, while many ITSM packages provide similar overall functionality, few possess the ability to scale down to an IT organization of our size, especially with only two people dedicated full time to end-user support."

According to Rouse, Miller-Valentine also needed to implement incident management in order to integrate its help desk functions with the new system. Extensive work was also required for request management and service catalog, as well as tying to the company's inventory database.

Jason Gardiner, CTO at ICCM, adds that Miller-Valentine cross-charged for all its IT products and services internally. Prior to the implementation of e-Service Desk, this process could take an employee three days to produce and calculate

manually in a spreadsheet. Miller-Valentine saw the e-Service Desk solution as a means of eliminating a number of manual and cumbersome processes such as this cross-charging, plus service desk and configuration management.

For example, notes Gardiner, each employee is charged by their GL department code for one or more of their core system and help desk services. This is, essentially, a baseline cross-charge. But there are also a number of other services, such as BlackBerry, Windows smartphone, and software application access, that are costs on top of the core charges. In addition to that, there are generally lots of exceptions to manage, such as multiple object



purchases, individual discounts, and credits. This is handled, partially, by the out-of-the-box solution in e-Service Desk using a number of the included modules along with planned integration with Microsoft System Center Configuration Manager.

ITSM Your Way

Miller-Valentine looked at a number of options in addition to ICCM's e-Service Desk but found the competition to be "too monolithic, rigid, or just plain pricey for our organization," Gutman says. "ICCM e-Service Desk gave us the flexibility to build ITSM our way, at our scale."

Rouse says e-Service Desk provides one main feature the other products did not: It is built on top of a BPM tool called Metastorm. This underlying tool provides an easily customized process design, which fits Miller-Valentine's specific needs.

"One of the downfalls of many software packages is the resistance to change, which often makes it necessary to shoehorn business processes into the available system, sometimes weakening them in the process. e-Service Desk flips that relationship, allowing us to easily change the software itself instead of morphing our own processes to accommodate it," Rouse says.

According to Gutman, implementation consisted of a three-day training session for Miller-Valentine's site leader, who was charged with configuring the product, followed by one week of experimentation and customization before the first process was online with the new system. Throughout that time, ICCM was and has been very responsive assisting the staff and helping employees understand the BPM model and its application to Miller-Valentine's service management processes.

"I don't think we'll ever consider implementation truly finished," Rouse says. "As we move forward with integrating new processes, we expect old ones to evolve, as well. That used to be a problem with other software packages, but now we can simply mold the program into shape and incorporate

those changes very quickly. Without a doubt, the greatest strength of e-Service Desk is the ability to rapidly modify the product to changing business needs."

Decrease Complexity, Increase Efficiency

ICCM e-Service Desk has already helped Miller-Valentine decrease complexity and increase efficiency in a number of areas, Gutman says. "For instance, its ability to tie in with Active Directory instead of maintaining a separate database of users has helped to streamline incident assignments and avoid errors. And because of the software's matrix-driven approach, we can prioritize work and projects in a more robust manner. This allows us to classify work not only by the severity of any given issue, but also by the number of people that issue affects."

Rouse adds that e-Service Desk supports call scripts, which go beyond simple templates. By using these features, Miller-Valentine can save customized button layouts and batch scripts to automatically perform functions such as disabling an account in Active Directory based on how Miller-Valentine classifies an individual work order. "Instead of maintaining separate checklists of action items to do when a certain type of call gets entered, all the tools to perform every function needed for that order can be made available right inside the [e-Service Desk] interface," Rouse says.

With e-Service Desk, Miller-Valentine "can now accurately tell what its services cost the company to the penny," explains Gardiner. "They know that \$40.06 of the cost of supporting an enterprise-wide desk-top for a year covers the cost of email; \$4.34 covers the network jack on the wall, and \$13.11 covers equipment disposal and environmental fees."

Future Plans

As for the future, Miller-Valentine Group plans to implement ICCM e-Portal, giving internal customers a shopping cart-like experience for purchasing IT services. "We'll also be using this system to allow users and their managers to browse all of the services that they're subscribed to, complete with the costs associated with each service. This way, everyone can tell, at a glance, exactly what they're paying," Gutman says. ■

ICCM e-Service Desk

Incorporates a business process management tool and blends an off-the-shelf ITSM process with an easy design that can be customized for a company's specific needs with minimal custom programming.

"While many ITSM packages provide similar overall functionality, few possess the ability to scale down to an IT organization of our size, especially with only two people dedicated full time to end-user support," says Rich Rouse, Miller-Valentine help desk site leader.

USED & REFURBISHED EQUIPMENT SPOTLIGHT

Where Does Refurbished Equipment Come From?

End Users, Expired Leases & Asset Recovery Are All Sources Of High-Quality Used Equipment

by Julie Knudson

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CONCERNS ABOUT THE ORIGINS and authenticity of used equipment continue to dissuade enterprises from giving the secondary market a serious look. Patrick Keuller, vice president of CentricsIT (www.centricsit.com), says that the message filtering down to IT groups is often, “buy new or you’re going to get counterfeited junk.”

Instead of shying away from the refurbished route, organizations should embrace the amount of high-quality used equipment currently available. “The market is in free flow right now,” says Phil Bettenburg, president of North American Systems International (www.nasi.com). “This is probably the best it’s been in a long time.”

Knowing how refurbished equipment enters the secondary market may help alleviate potential buyers’ concerns and save them some money at the same time. So where does all that equipment come from?

End users. Organizations end up with surplus equipment for a variety of reasons, ranging from data center upgrades to going out of business. Keuller sees a sizeable amount of quality equipment moving from existing data centers directly into the secondary market, and as a reseller, that’s his team’s preferred procurement method. “It’s been under production and someone

has been using it,” Keuller says. “They don’t need it for whatever reason, and we buy it straight out of their location.” The age of end-user equipment varies widely, but it’s often in good condition and fine working order.

Equipment coming off lease. Data centers with leased equipment may swap out components—or entire production environments—when their lease periods are up. Once the equipment has been returned to the leasing company, a reseller is contacted to move the components to the secondary market. Post-lease equipment is typically one to three years old and is in very good condition. Items coming off an OEM lease may offer buyers some additional perks. “It comes with a guarantee that it’s eligible to be put under contract at the next location,” Bettenburg explains. “Most of the third-party or open-market resellers will do that. If it doesn’t qualify under that contract, they’ll take it back.”

Manufacturer take-outs. When a data center chooses a new hardware vendor, it’s not uncommon for the incoming provider to replace components that are manufactured by someone else. Equipment removed for this reason is usually in perfect working order, but it’s no longer welcome in the new vendor’s environment. Manufacturers also remove their own equipment as part of upgrades and other projects.

“[Manufacturers] come to us directly with opportunities to buy used equipment, whether it’s their own equipment or from competing manufacturers,” Keuller says.

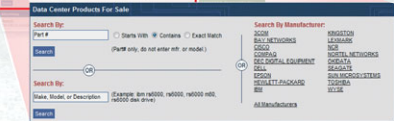
Asset recovery and disposal channels. When companies downsize or go out of business, it’s common for banks, auction houses, and salvage companies to be involved in getting rid of equipment in the hope of recovering some cash. The

condition of the equipment depends on how long it’s been sitting idle and where it’s been stored, among other factors. Each company has its own method for preparing equipment for disposal. “Some sell it as-is, and some do a good job of cataloging everything for disposal,” Bettenburg says. Reputable resellers will give each component a comprehensive check-up before offering it for sale. ■

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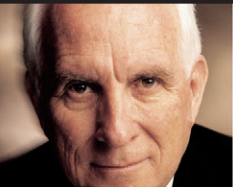
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Confidence Levels Rising Among IT Company Execs

Optimism concerning economic- and business-related conditions is up among IT company executives, according to the Computing Technology Industry Association's Q4 2010 global "Industry Business Confidence Index." CTIA gathered data from more than 1,100 IT companies for the index. Based on a 100-point scale, it measures the average sentiment "about the economy, IT industry, and individual companies." Ending in December 2010, the Q4 2010 index charted a 60-point confidence score, the highest since CTIA started the index in June 2009 and up seven points from the third quarter.

In a release, CTIA stated that IT company executives expect the 60-point mark to increase an additional five points in the coming six months. Tim Herbert, CTIA vice president of research, says, "We were expecting an increase in the index due to positive momentum in many areas of the economy (business investments, housing stability, pick-up in hiring intent, exports, increased capital availability, etc.). In the Q3 2010 release (October), the projection was for a five-point increase in the Q1 2011 (January) release, so yes, there was a bit of a surprise to the upside with a seven-point increase."

Spending On New Products

Of U.S. IT companies, 45% expect to increase spending on new products and business lines, while 43% plan to pick up technology-related spending this year. A third of U.S. IT companies expect to increase staffing levels in the next six months. Globally, IT industry spending is expected to grow 4% this year, though upside growth potential could push that to 6%. Slightly higher growth is expected in IT services, software, and the enterprise market.



Overall, Brazil, India, and China reported "especially bullish" forecasts, with each expecting IT industry revenues to increase 7.5%. The differences between these countries and the United States can be primarily attributed to differences in economic growth, Herbert says. "The U.S. is still recovering from the most severe recession since the Great Depression of the 1930s. While the IT industry held up relatively well over the past few years compared to other sectors of the U.S. economy such as construction, manufacturing, and certain service sectors, it, too, took a hit—especially among the very small IT firms, under 10 employees."

The CTIA expects several key technology trends to impact the IT industry this year. Among them are cloud computing; growth in data; mobile and wireless computing; the ability to work at any time from anywhere due to mobile device and social networking usage; increased automation; and the continued growth of presence, virtual telephony, multi-person video chat, mobile video conference, and related applications.

by Blaine Flamig

Getting Involved In Company Direction & Planning

Corporate Speak Can Go A Long Way For IT Executives

by Chris A. MacKinnon

IT'S ROLE IN OVERALL corporate strategy saw a jump in 2010. The jump is due in part to the way the corporation views the IT department—as a strategic business enabler, not just an extra-large business expense. But if IT and data center managers are not yet part of the business decision-making process, how can they begin to provide input in terms of overall corporate direction? We asked a few experts who have some great tips and advice on the subject.

Driving Factors

According to Dana Collins, senior vice president of support services at Abtech Support (www.abtechsupport.com), the past two years have forced companies to look harder at their costs of running the business and the efficiency by which they operate. Collins comments, "The largest cost is that of labor. The IT group, while normally looked at as a money pit that has very little to do with the overall growth of the company, is being invited back to the table by senior management."

Collins says the invitation is extended to look for ways to automate tasks; increase collaboration in order to make it easier to use lower-cost, geographically diverse labor; and reduce labor costs and increase sales.

Peter Sacco, president at PTS Data Center Solutions (www.ptsdcs.com), says IT has become accepted as a primary driver in any company's ability to deliver on its core competencies. As such, Sacco says a misalignment of IT capability with business needs will result in operational inefficiency and lack scalability to adapt to growth. "Today, most every company has to worry about making IT a competency to remain competitive and to differentiate themselves," he says.

Get Involved

To become part of the overall business decision-making process, Simon Palmer, president of STA (www.staweb.com), says, "Executives should start making friends in line of business and the executive suite right away." Palmer says, historically, it seems that midmarket company IT departments have paid little more than "lip service" to business needs. Now, he says, executives are tech-savvy enough to know that they should expect IT to deliver a business outcome. "Successful IT executives are focused primarily on defining the business outcome and leaving the IT nuts and bolts to their team," he says.

A good start, in Sacco's opinion, is to map all the places where business services are supported by IT capabilities. He elaborates, "One of the most critical areas is business process. In many companies,

business processes are mostly dependent on the ability to deploy IT services to enable them."

The most often cited complaint that executives have of the IT team, in Collins' opinion, is their failure to grasp the basics of business, let alone the idiosyncrasies of their particular business. He explains, "Projects only get funded if you can save money, make money, or mitigate risks. If an IT executive isn't thinking like this, then they will never get into the business decision-making process because they don't speak the language or get the concepts. A CEO doesn't want to hear that your backups ran perfectly for two years; the CEO wants to know how the company can avoid hiring more labor for a new product line."

Collins says the best place for an IT exec to start is to take the vice president of sales out to lunch and ask "What can we do in IT to make it easier for your sales team to generate more revenue?" He says money talks at the C-level, and the quickest way there is increased sales. "Show how IT can generate more sales leads, help close deals faster, or increase the margin in a sale, and IT now has the right to be with the decision makers," says Collins.

It's In The Strategy

Providing input is one thing, but playing a strategic role in the overall business is another. Sacco says in a small organization, it is as simple as communicating and educating management. "Effective communication and education is an important skill for any IT management staffer. For a small business, it is even harder because the business owner typically understands even less about IT needs and demands," he says. "Most C-level executives don't understand the rigors of IT execution and therefore require an education by their IT support staff. For me, a picture is worth a thousand words and examples do the trick. One of the best examples of a company embracing IT to further its capabilities is

Key Points

- One of the biggest complaints that executives have of their IT teams is the teams' failure to understand business basics.
- IT is becoming a primary driver in a company's ability to deliver on core competencies. If IT capabilities and business needs are misaligned, operational inefficiency and a lack of capability to adapt to growth will occur.
- Many C-level executives require an education by their IT support staff because they don't understand the ins and outs of IT execution.

Walmart. Love them or hate them, IT has been critical to their success."

Collins says once IT is seen as a key part of revenue generation and cost savings, then the CIO will be invited into meetings. He says this is especially important in small businesses where employees wear many hats and the owners are very close to the cash flow and profit situation as it relates to everyday operations. He notes, "IT can have a tremendous impact on a small business if the CIO (or whoever is acting as a CIO in a small business) can leverage technology into better use of capital, increased sales, or enable other multi-tasking employees to focus on higher value work."

Palmer says he recently heard a Fortune 10 CEO make the following comments: "Show me a bad CIO, and I will show you a bad CEO." He says IT executives need to ensure they have the full sponsorship of the CEO because tough decisions likely will be made, and it's important that the CEO is willing to sponsor the delivery of this message. However, he says the sponsorship is earned, not given, so IT executives need to ensure they present a solid case on how their IT plans align with the business' needs and goals. ■

Three Good Reasons

There are three possible reasons that an IT leader is not part of the business decision-making process, according to Andy Woyzbun, lead analyst with Info-Tech Research Group.

The IT leader has little personal relationship with the members of the senior management team. Cultivate contact with influential members of the management team, such as the CFO and the COO. They won't ask for IT's participation if they don't know the leader.

IT is not highly regarded by the management team. IT leaders aspiring to become involved in decision-making need to understand how their work is really assessed. If there are performance concerns about IT, these need to be addressed first.

IT is not considered important to the organization. If this is the only barrier, the leader should leverage personal connections with management to identify opportunities for IT innovation. Small but successful suggestions should open the door to invitations to some decision-making meetings.

HOW TO

Boost Your Remote Support Capabilities

More Robust Offerings Help Standardize Support

by John Brandon

MANY SMALLER COMPANIES use consumer-oriented tools such as Yahoo! Messenger, along with the occasional phone call, to engage with employees on support issues. But, if the remote support capabilities in your organization mirror this scenario, it might be time to consider an upgrade. Boosting support offerings can help streamline the process, meet regulatory compliance rules, and free your staff for more important tasks within a data center.

Analyze Support Needs

One key to boosting your remote support capability involves analyzing current support requirements, according to Nathan McNeil, co-founder and VP of product strategy at Bomgar (www.bomgar.com), a company that makes remote support software and appliances. McNeil says that many companies are only using phones for

Windows operating systems, and may be working from home.

“You have to take a look at what needs to be supported. Take stock of what is in your current environment and which requirements you really need in the company,” says Weiner.

McNeil says it is also important to look at who will be doing the support—are they all in one remote location and need to assist employees at a branch office, or are they technicians distributed all around the country who need to tap into the systems at a home office?

Choose A Product

Choosing a remote support product to boost capabilities usually starts with evaluating the needs of your organization and then finding a match for those support needs. McNeil says one key differentiator between remote support products is that some appliances for data centers meet PCI DSS requirements for financial institutions in that they capture data between the technician and the end user. These appliances also provide logging and recording functions, multifactor authentication, encryption, and other network security tools to meet the needs of banks, retailers, and those in the health industry.

“A Forrester report shows that 90% of the organizations using open-source tools for remote support are not using them in a way that is compliant, or at the very least using them with a host of other compensating tools,” says McNeil. “A QSA would find that out in a survey of the company.”

McNeil says that it is important to have an audit trail for remote support sessions that show how sensitive company data was accessed and by whom. He says the typical model in many organizations is to use a shared support tool, usually one that has the same password for all users that rarely changes and that is poorly integrated with other company systems, such as Intranet or help desk data.

“There is no middle point, and there are only two places you can store logs: on the rep’s computer or the end-user system,” McNeil says. “You can take the log and offload to a server, but what happens during that interim period? The security model for logging the interaction [using open-source remote support tools] is weak by nature of the point-to-point model and does not allow that middle point between the connections.”

Failure To Implement

One of the major issues with boosting remote support in an organization is that, too often, the IT department installs a more robust solution but then fails to integrate that solution into the fabric of the company. Both McNeil and Weiner say this is a common problem because products tend to be shoehorned into the

existing process rather than taking the time to develop the process that works for that company. Weiner says many of these issues can be alleviated by developing a sound workflow for the product, training technicians on that process, and then adhering to the workflow.

Interestingly, this problem of workflow integration is also one of the greatest gains from using more robust remote support tools. Weiner says many companies see that the workflow process improves the support offering, frees technicians to either take on more support calls or to perform other tasks, and streamlines the support process so that employees and clients are happier.

He says it is important to increase awareness about what the support product can do for the company. For example, does it support screen-sharing between computers, or can the support session run in an attended or unattended

mode? It’s important to let the technicians know about these robust features.

“If you do raise awareness about the tool with your technicians, that tends to improve the overall usage and, for lack of a better term, the stickiness of the product,” says Weiner. “If you treat this as an overall approach to solving end-user problems, the product will be used frequently.”

In the end, boosting remote support can pay dividends for any organization because the quality of the support will go up and the workflow for support calls will improve. ■

TOP TIPS

- Lee Weiner, vice president of the support product group at LogMeIn (www.logmein.com), says some remote support tools can help a technician read the system specs of the end-user system, even if it is a smartphone.
- Develop a workflow that matches the capabilities of the tool. Nathan McNeil, co-founder and VP of product strategy at Bomgar (www.bomgar.com), says this can help make sure everyone is following the same procedures on support calls.
- Improving the remote support capability can also mean setting standards for all support calls and using scripts that streamline the support process and make it run smoother.

OEM PRODUCTION ITX-10B-ION2 MINI PC

NEW PRODUCT

by Joanna Clay

A Power-Packed Small Form Factor PC

DIGITAL SIGNAGE, network appliance, point of sale, surveillance, and other similar applications demand a powerful PC in a limited amount of space. The industrial-grade ITX-10B-ION2 Mini PC from OEM Production delivers. It may have a diminutive exterior, but there are a lot of multitasking and graphics capabilities under its 1.4- x 7.5- x 7.5-inch aluminum chassis.

For instance, the Mini-ITX motherboard form factor supports an integrated dual-core Intel Atom D525 1.8GHz processor and Nvidia GeForce ION GT218 video card along with 512MB VRAM. The single-channel memory architecture can support up to 8GB of DDR2 667MHz memory. Audio and video functionality includes ALC662 High Definition Audio codec as well as support for Optical S/PDIF output and Blu-ray.

There is enough room for a 2.5-inch HD/SSD drive; you can connect additional storage via one of the six USB 2.0 ports. Other rear I/O ports include one of each of the following: LAN, HDMI, DVI, DC-in, and two-jack audio interface. The internal I/O connectors feature two USB connectors (with support for an extra four USB 2.0 ports),

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The ITX-10B-ION2 Mini PC uses strategically positioned ventilation to



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Key Points

- Analyze the remote support needs of your particular organization. Think about who will be doing the support, where the technicians are located, and which tasks they will perform.
- Look closely at the mobility needs of the organization. Do most users have laptops and smartphones, or are they in an office using desktops?
- Follow through on the new capabilities by training technicians on the product capabilities and integrating it into the support workflow, rather than just adding the tool.

remote support or use an ad hoc approach that involves instant messaging and free screen-sharing tools, but the actual support needs might be much more robust. For example, some organizations need the remote support tools to tie into a company knowledge base and follow a set script so that technicians stick to a common model for handling support calls, and, in some cases, they might also need the ability to tap into existing servers and networks for more complex remote sessions.

“Organizations need to think about why they are boosting support and integrate the support into their core processes rather than just adding an auxiliary tool,” says McNeil.

Lee Weiner, vice president of the support product group at LogMeIn (www.logmein.com), a software-based remote support product, says it is important to identify the needs for mobility in an organization. For example, many users are in distributed offices, use BlackBerry smartphones, use laptops that run Mac or

Security Poor On Federal Web Sites

A study by DNS vendor Secure64 Software found that about half of U.S. government Web sites are vulnerable to DNS attacks. The news is particularly disturbing considering the Office Of Management & Budget issued a mandate requiring federal agencies to deploy a DNSSEC (DNS Security Extensions) by Dec. 31, 2009. About 51% of agencies are not in compliance with the DNSSEC, which is designed to prevent cache poisoning attacks where Internet traffic is redirected from a Web site to a fake one. Secure64 Software indicates that more than a dozen top-level domains, including .org, .edu, and .net, support the DNSSEC standard.



AMD Execs Resign

Two of AMDs highest-ranking executives have resigned, AMD recently announced. Bob Rivet, AMD's chief operating and administrative officer, and Marty Seyer, senior vice president of corporate strategy, stepped down from their positions Feb. 8. AMD says that Rivet and Seyer will both remain with AMD for a brief period while transitions are made. The Corporate Strategy team will now report to AMD's senior vice president, general counsel, and secretary Harry Wolin, while product manufacturing will be headed by AMD's senior vice president of manufacturing operations, John Docherty. The resignations come a month after the resignation of AMD chief executive Dirk Meyer.

Microsoft Urges Patent Reform

In a blog post, Microsoft Senior Vice President and General Counsel Brad Smith and Corporate Vice President and Deputy General Counsel Horacio Gutierrez encouraged patent reform in the United States. Their suggestions for better patent laws include allowing the U.S. Patent and Trademark Office to set its own fees, adopting the "first inventor to file" system, weeding out bad patents, the ability for third parties to submit prior art, and reducing litigation that Smith and Gutierrez see as mostly frivolous. They also suggest dropping some damages proposals, the willfulness standard, and inequitable conduct from current proposed legislation.

Outsourcing Savings Continue To Drop

Offshoring isn't what it used to be, although many businesses still plan to expand their global sourcing. So says the sixth annual study of third-party outsourcing and captive center operations conducted by The Conference Board and the Center for International Business Education and Research's Offshoring Research Network at Duke University's Fuqua School of Business. Average outsourcing cost savings of 38% 10 years ago have dropped to 27%, the survey showed, including a five-year slide in IT services and software development savings. However, average savings have increased in outsourced administrative and innovative areas. Companies participating in the 2011 survey receive a complementary copy of the entire annual report. Visit the survey at <https://offshoring.fuqua.duke.edu/ciber/registration.jsp>.

Training: Measuring Success

How To Gauge Bottom-Line Results Of Training Programs

by William Van Winkle

RELATIVELY FEW ENTERPRISES measure their training effectively, leaving themselves open to damaged bottom lines rather than receiving anticipated returns. According to a recent report by ESI International (www.esi-intl.com) titled "The Measurement Dilemma: Tying Learning to Business Impact and Financial Outcomes," more than half (50.7%) of all queried organizations don't measure the business impact of their training. Curiously, though, 47.4% of those who do measure business impact fail to use a specific measurement methodology, but 66.3% felt able to prove that their training was truly effective. The bottom line is that relatively few enterprises measure their training effectively, leaving themselves open to damaged bottom lines rather than receiving anticipated returns.

The Challenge

According to Jeffrey Berk, COO of KnowledgeAdvisors (www.knowledgeadvisors.com), job-based training is often viewed as a perk or as an unavoidable human resources expense—a "sunk cost." Either view devalues the role of training in the organization and will likely not lead to management wanting to measure that training's efficacy.

"How much [are] people investing in measurement?" asks Berk. "Most of the time, it's 0 to 1%. Not even a rounding error of the overall budget gets invested in managing the multimillion-dollar learning effort. It's kind of sad. You can get a really robust measurement tool that's completely automated with benchmarks and everything, and you're still talking 5% or less of the budget on such a tool. We've seen companies with learning measurement data make phenomenally better decisions in a more timely manner, thereby shaping the value that comes out of their investments and programs."

Berk notes that too many companies spend less than 1% of their overall learning and development budgets on measuring training efficacy. In essence, if companies spend \$100,000 to run a seminar series on improving performance, less than \$1,000 is spent to gauge that seminar's immediate and lasting impact. This contrasts starkly with the 5% or more Berk says gets spent on areas such as supply chain or marketing.

"With 60 to 70% of training programs, you fill out a form at the end, and you measure satisfaction," says Josh Bersin, CEO of Bersin & Associates (www.bersin.com) and author of "The Training Measurement Book: Best Practices, Proven Methodologies, and Practical Approaches." According to Bersin, "only 10% or 15% of people actually try to measure impact. So when companies do effective training that improves people's job performance, the word gets around. People tell their managers, 'Oh, this is a really good class, you should send more people to it,' but the training professionals are not asked to measure [the effectiveness of the class] because measuring is so difficult."

Bersin notes that there are several ways in which to observe the benefits of training. First, there's productivity. If a code developer churns out 50% more code after a training session than before with the same accuracy level, there's a productivity benefit that can be quantified and averaged across a

Key Points

- According to survey data from ESI International, most enterprises do not measure the results of their training, and many of those that do measure may not be doing so in a reliable, informative manner.
- Training measurement is relatively underfunded, often because management fails to grasp the importance of training and how it can impact the bottom line.
- KnowledgeAdvisors research shows that enterprises that do measure training show a clear correlation with higher-than-average business results.

group. Another metric might be quality, as when customer service reps receive higher satisfaction ratings after a training session. Yet another benefit might be seen in retention rates because many employees perceive that training enhances their careers and makes them more valuable. The fourth major area in which companies can see training benefits is sales.

Still, regardless of what benefit is being assessed, training remains a soft, ambiguous thing to quantify, if only because some people resist training and others excel without any training at all. Such ambiguity exacerbates some management's impulse not to bother with formal measuring.

Getting Results

Raed Haddad, ESI's senior vice president of global delivery services, notes that managers need to view learning as a project, complete with objectives, sponsors, an implementation plan, and feedback to stakeholders. Additionally, managers need to identify what specific business results they want to measure. This helps avoid vague, useless "smile sheet" surveys that ask about little more than general satisfaction with a course or instructor. Rather, managers need to identify metrics that reflect training results over time. It's one thing to get feedback immediately after training and potentially something quite different when polling for the same data again several months later. Training that "wears off" sooner may have less value.

"Deploy a data collection process that leverages the existing course-end evaluation

so it won't add another survey to the organization," says Haddad. "Turn it from the smile sheet to a smart sheet that will ask predictive job impact and business results questions; then come back in 90 days or so to assess actual results. This would provide you qualitative and quantitative data that can show business impact based on a scalable and accurate enough approach to help you make the impact case to the most skeptical executives."

Migrating from so-called smile sheets to smart sheets can work wonders in establishing useful data baselines and may prove sufficient for most learning measurements. However, KnowledgeAdvisors' Berk adds that the most strategically important programs probably merit more robust data collection, including follow-up surveying. This might include traditional measurement methods, such as ROI models or the Kirkpatrick Model (see www.kirkpatrickpartners.com), but many consultancies tend to adopt their own methodologies.

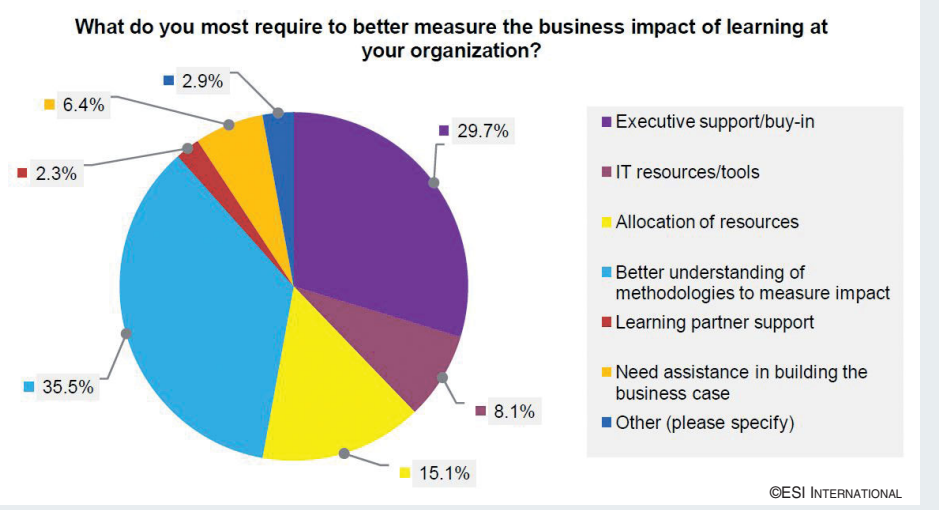
"When companies measure training, they discover things like the course was too long, or it could have been a day shorter and people would have gotten more out of it. The instructor was the wrong type of person. They needed somebody more grounded in reality or more theoretical. There wasn't enough reading. There was too much reading," says Bersin. "[Companies] don't know that stuff unless they get feedback. So this process of measurement isn't just to figure out the ROI. Where it really pays off is how you get all the little feedback on the things that will make your training better and better."

That may sound warm and fuzzy, but can a real bottom-line benefit to measuring training be gauged? KnowledgeAdvisors data shows that companies which measure learning "from a financial outcomes perspective" outperformed the S&P 500 by 17% in 2009, in the depths of the recession. In the two prior years, measurers outperformed the S&P by 15%.

"There's a positive correlation—not a causation but correlation—between organizations that measure learning investments and the fact that measuring leads to better management. Better management creates high-performing workforces that drive business results," says Berk. ■

What Would Help?

According to ESI's survey, the two largest factors enterprises need to improve the way they measure the impact of training are better comprehension in how to measure business impact and support for measurement processes from executives.



ASHRAE Provides Green Tech Tips: New Publication Lists 26 Recommendations

BY ROD SCHER

THE MAJORITY OF A TYPICAL DATA CENTER’S ENERGY CONSUMPTION can be attributed to the power and cooling used to support the equipment housed in it. How much energy are we talking about? Well, a 2007 EPA report estimated that the nation’s servers and data centers consume about 61 billion kilowatt hours per year, at a cost of some \$4.5 billion.

It’s thus in our best interests, both financially and environmentally, to find ways to reduce our energy consumption, and ASHRAE (the American Society of Heating, Refrigerating, and Air-Conditioning Engineers) has recently published a book offering tips and techniques to help us do so. The book, “Green Tips for Data Centers,” describes ways to optimize energy efficiency, often through simple changes that require little investment and cause little or no disruption.

“The tips provide insight into practical techniques that have proven successful in other datacom facilities and give owners and operators the confidence to implement similar techniques in their own facilities,” said Don Beaty, president of DLB Associates and chairman of ASHRAE Technical Committee 9.9.

Most efficient of all would be to design new, energy-efficient data centers from scratch, but few of us are in a position to do that. Absent that opportunity, perhaps we can instead take our cues from ASHRAE’s “Green Tips”

book and find new, affordable ways to improve the energy efficiency of our existing data centers.

The Tips

The ASHRAE publication makes 26 specific recommendations, notes Beaty. All 26 are potentially useful, of course, but three stand out:

Install monitoring equipment to measure efficiency and performance. (Tip #1a) “While not directly an energy-saving technique, there is truth in the adage, ‘If you cannot measure it, you cannot improve it,’” Beaty says.

Optimize supply air temperatures. (Tip #2a) “Many data centers are operated at considerably lower temperatures than what is required by IT equipment,” Beaty says. “Turn up the thermostat and save cooling energy.”

Enable power management features. (Tip #7d) “Any power-saving measures that can be implemented at the IT equipment level will reduce electrical consumption both directly and indirectly,



since the cooling load will also be reduced,” Beaty says.

Why The Need?

The very need for a book of energy-reduction recommendations brings up some obvious questions: Why does data center adoption of green tech seem to lag behind? Why is green tech not embraced as quickly or as readily as we would like?

“Data centers are typically considered mission-critical facilities, and as such, there has been a greater emphasis on reliability than on energy efficiency,” Beaty explains. “Any changes to existing operational procedures or the implementation of new technologies can be viewed as a risk to reliability and therefore there has been some resistance—perhaps due to fear of the unknown. We believe that through ASHRAE we can inform and educate the industry in an unbiased manner, and by doing so, will increase the acceptance of green technologies and techniques.”

The takeaway from this is that there is low-hanging fruit available; there are ample and affordable opportunities for energy conservation in almost all cases: “Regardless of the size or configuration of your data center, there is likely a practical manner in which to improve the energy efficiency,” Beaty says. [P]

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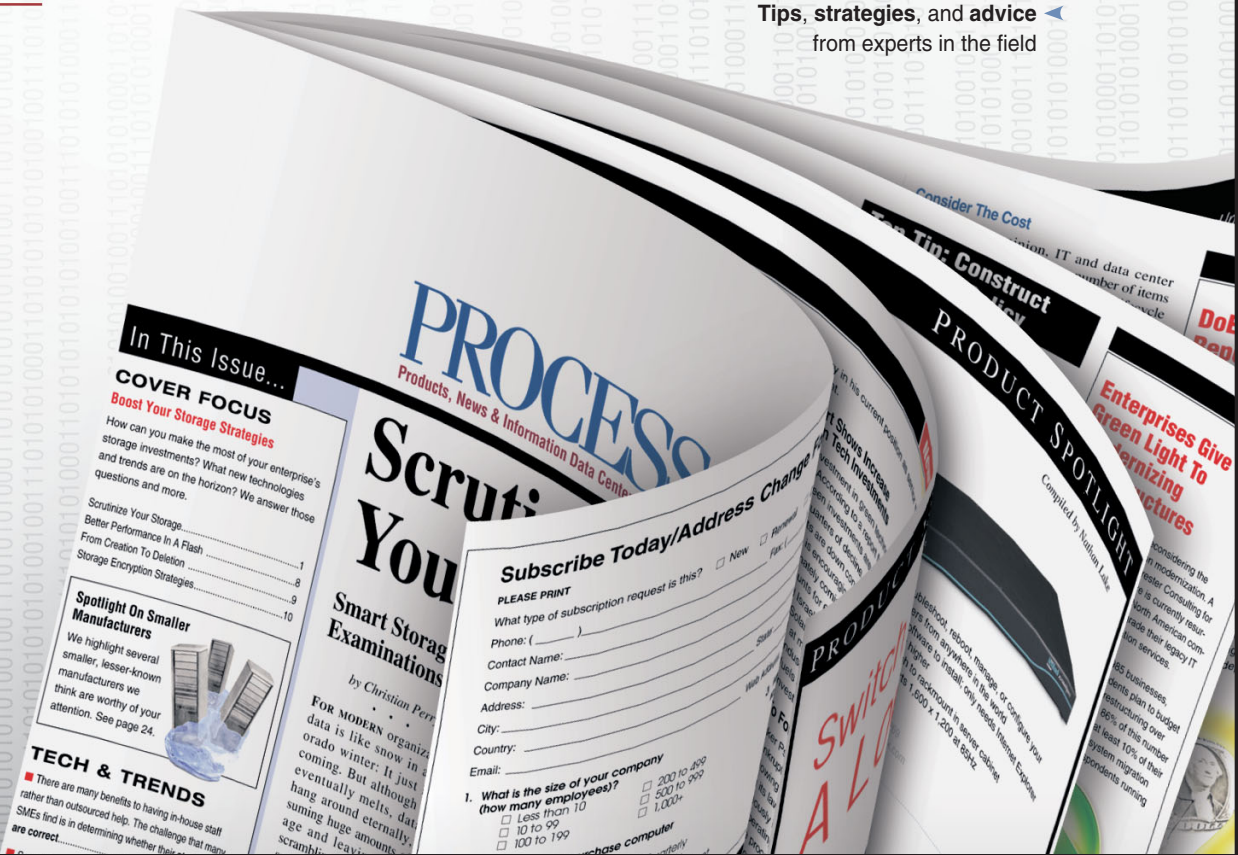
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